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CITY OF CAMBRIDGE

THE MAYOR'S ADDRESS

AT THE

ORGANIZATION OF THE CITY GOVERNMENT,

JANUARY 1, 1894,

AND

THE ANNUAL REPORTS

MADE TO THE CITY COUNCIL

FOR THE YEAR 1893

CAMBRIDGE
HARVARD PRINTING COMPANY
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ADDRESS

OF

HON. WILLIAM A. BANCROFT,

MAYOR,

TO THE

CITY COUNCIL,

JANUARY 1, 1894.

Gentlemen of the City Council:

Entrusted with the administration of a large part of the city's concerns for the year now beginning, it becomes our duty to acquaint ourselves with the city's needs that provision may be made therefor. Many things are desirable. Few things only can be done. But a certain policy can be followed in what is done. Circumstances and its situation have determined that our city shall be largely a city of homes. Manufacturing and mercantile interests there are within its borders; but the daily resort of a large portion of our people to Boston to pursue their vocations indicates its residential character. It is our purpose to make Cambridge still more attractive as a home. People of means have not been slow to discern our advantages. Many have come. More are coming. Proximity to Boston, healthfulness, valued educational facilities, unusual municipal resources, above all a clean, orderly city, and an honest city government

responsible to a community whose intelligence is no idle boast, are considerations that will not be disregarded by thoughtful persons in selecting a home.

Large tracts of land in the Western and South Eastern quarters of the city await the erection of dwelling houses upon suitable streets, and for all its people works of utility and adornment have been provided, and more is to be done by the city.

Chiefly its water supply, its sewers, its parks, its streets and its public buildings will engage your attention.

Its schools are managed by a board responsible directly to the people.

An important object of your care will be the conditions affecting the public health.

Something, too, you will consider for a further protection against fire.

The judicious employment of the idle is a problem for solution.

In making appropriations for the year needs should be distinguished from wants. It will be our duty to incur no debt except for extraordinary and permanent improvements in whose benefits others also are to share and to incur such a debt only within reasonable limits.

Current expenses should be met with current revenue. Whatever appropriation is determined upon, it will be the duty of the executive, through the several boards and heads of departments, to expend economically. Through your appropriate Committees, I need not remind you, it will be your duty to scrutinize all

expenditures with intent to restrain waste and extravagance.

While it is needless to weary you and to burden the public press with extended comments upon the various departments whose workings are set forth at length in their several reports, reports of which I bespeak your careful examination — I deem it proper to make a brief statement of our financial condition, to summarize the more important doings of those in office last year, and to call attention to some of the subjects which demand our consideration.

	1892.	1893.	Decrease.	Increase.
Funded City Debt.....	$2,439,000 00	$2,216,000 00	$223,000 00	.....
Sinking Fund.....	772,280 00	632,815 00	139,464 87	.....
Net Funded City Debt....	$1,666,719 99	$1,583,184 86	$83,535 13	....
Funded Water Debt.....	$1,711,500 00	$1,861,500 00	.....	$150.000 00
Sinking Funds of W. Works	602,019 27	686,867 26	.....	84,847 99
Net Funded Water Debt..	$1,109,480 73	$1,174,632 74	.....	$65,152 01
Net Valuation.....	$73,015,598 00	$75,314,935 00	.....	$2,299,337 00
Borrowing Capacity.....	*672,510 82	†1,130,516 51	.....	458,005 69
Limit of Taxation for Municipal Purposes, outside of the Sinking Fund requirements, Interest on the Debt and State and County Tax based on the average net valuation for three years..	$834.830 79	$870,576 60	.....	$35,745 81

PARKS.

The past year has been marked by the appointment of permanent park commissioners, by the taking, at their

*Includes Harvard Bridge Exemption, $400,000.00; and Park Exemption, $200,000.00.
†Includes Harvard Bridge Exemption, $400,000.00; and Park Exemption, $500,000.00.

recommendation, of portions of the Binney Field and the Rindge Field for park purposes, and by a comprehensive report, containing further recommendations, which I heartily approve. The adornment of the city, its health and its morals are the objects to which the labors of this important commission are directed, and so far its labors have certainly been energetic and praiseworthy.

WATER.

During the past year the Water Board has renewed a large amount of piping which had become unsuitable, has continued the work of filling around Fresh Pond, has erected a house and stable for the pumping engineer, opposite the pumping station, has completed the driveway around Fresh Pond, has widened the driveway between Concord avenue and the pumping station, has taken possession of a large tract of land with the buildings thereon, on the south side of Fresh Pond, has constructed Huron street from the railroad nearly to Cushing street, including a bridge over the pipe line, has built an ice guard at the Stony Brook reservoir, just above the Robert's Dam bridge, has perfected the screening apparatus at the gate house of the storage basin, has made improvements in the dwelling house and stable near by, and has developed plans for the further utilization of the sources of our water supply. These plans were adopted by our predecessors. By the action of the City Council the water rates were reduced.

SCHOOLS.

Number of pupils on the first of December	11,646
Number of teachers	297
Cost of the day schools, not including expenditures for new school-houses	$274,053.82
Increase over last year	7,402.80
Cost of the schools per pupil	24.81
Increase per pupil	.26

The observation of the past year has only strengthened my confidence in the management of our school system.

LIBRARY.

Donations to the public library have been the notable one of Dr. Morrill Wyman, viz., the Tiedemann medical library of 4,690 volumes; 110 volumes and $390.00 in money at the hands of Edward W. Hooper, Esq., who was charged with the distribution of the library belonging to the late Prof. E. W. Gurney; and nearly 100 volumes from the heirs of the late Rev. Andrew P. Peabody, D. D. An appropriation of $20,000 has been made, plans accepted and a contract awarded for an addition to the library building, to be begun in the early spring. Since March the library has been opened from 2 to 6 o'clock on Sunday afternoons.

POLICE.

The First Police District has been supplied with signal boxes, and now the entire city is equipped. An addition of three men has been made to the department, which now contains 101 persons, including

two matrons. The patrol force has been drilled and thoroughly inspected monthly. The department's performance of duty has been in the main satisfactory to the executive. The city has employed counsel to assist in criminal prosecutions in the District Court and the arrangement has been, I believe, advantageous to the public interest.

FIRE.

The purpose of a fire department is to put out fires. During the year the Cambridge Department has been successful in accomplishing this purpose. A Hayes extension ladder truck, fully equipped, has been purchased, so that the apparatus now consists of seven steam fire engines, one chemical engine, four hose wagons, three hose pungs, two hose carriages, three ladder trucks, five fuel wagons and 11,750 feet of hose. Eight hundred hydrants are available for use. To perform the service, 33 permanent and 74 call men are employed, and 28 horses are used. Engine No. 3 has been moved from the building on Fourth street to the admirably located and suitably constructed new house on Third street.

SEWERS.

During the year, 2.365 miles of sewers have been built, making the total length of the city's sewers 93.498 miles. The total cost of these sewers to date has been $1,163,230.08. To connect our system with the Metropolitan sewer $75,000 was appropriated.

PUBLIC BUILDINGS.

There have been built a brick school-house containing six rooms, now occupied, at the corner of Broadway and Sixth street; a large building for the fire department at Lafayette square, with provision for an engine company and also for a truck company: an engine house on Lexington avenue; and an addition to the police building on Fourth street in which extensive alterations have also been made. Needed plumbing has been done in the Agassiz, Dana, Dunster, Holmes, Reed, Riverside, Tarbell and Wyman school houses. An important rearrangement of the interior of the Almshouse has been effected, and this, with the employment of a night watchman, and the introduction of a more ample water supply is calculated to increase the safety of the inmates in case of fire. A brick vault has been built on the second floor of the Central square building to protect the valuable records of the Overseers of the Poor. The other doings of this department are set forth in the interesting report of its superintendent.

The Inspector of Buildings has issued permits for private structures as follows: Wooden buildings, 457; brick and stone, 34; for sundry purposes, 36. Total. 527.

WIRES.

All the work of electrical construction required by the city has been done by this department. Three

fire alarm boxes have been located and one whistle machine has been put in circuit at the Electric Light Station. The fire alarm telegraph has been called upon to give 167 alarms, and in no instance has it failed when the instructions upon the door of the box have been followed. The Inspector has made a series of tests upon the water pipes belonging to the city, and has shown that the powerful current maintained by the West End Street Railway Company causes injury to the pipes by electrolitic action. The company has done much to prevent the injury, but more remains to be done.

LAMPS.

The number of lamps in use November 30, 1893, was:—

Arcs	447
Incandescents	168
Gas	300
Oil	32
Total	947

The existing contract for gas expires next October.

Initial steps towards the acquisition of a lighting plant have been taken in the manner provided by law. The expediency of such an acquisition should receive your careful consideration.

POOR.

444 persons have been supported at the almshouse or at other institutions. Besides these, 502 families, including 1506 persons, have been aided from

the office of the Board. The net cost has been $52,312.84, about $5,000 more than it was last year. I believe that the peculiarly difficult duties of this department have been performed by the Board and its assistants judiciously and humanely.

BRIDGES.

The city's care of Harvard, West Boston, Craigie and Prison Point bridges has been well attended to by Mr. Commissioner Marvin. It will be necessary this year to replank the Harvard bridge.

THE SEALER OF WEIGHTS AND MEASURES

has prosecuted his work with vigor, and, it is believed, has succeeded thereby in preventing much fraud.

CEMETERY.

A new gateway of simple but beautiful design has been erected at the entrance of the Cambridge cemetery. Arrangements have been made to extend the system of water works well into the Winchester property. River avenue has been extended and strengthened by a substantial stone bulkhead. Halcyon avenue has been opened for use and many new lots have been completed. Both cemeteries have been excellently cared for, and the Commissioners have placed to the credit of their department, above all expenses, a balance of $1,302.46.

FOOD INSPECTION.

Besides the inspection of milk, vinegar, and oleomargarine, Dr. Dunbar has attended to the inspection of ice offered for sale in the city. He points out that there are no existing regulations adequate to prevent the sale of impure ice.

SOLDIERS' AID.

There has been paid as soldiers' aid during the past year the sum of $25,469.80. At the present time, 375 persons are receiving aid.

HEALTH.

Much plumbing has been done in compliance with the orders of the Board of Health, a plumbing ordinance has been adopted in pursuance of law and an inspector appointed. A mounted officer has been stationed upon the dumps near First and Second streets to prevent the deposit of improper material, and the filling of the flats has rapidly progressed. An appropriation has been made for the establishment of a hospital, to be used in cases of small pox, and other contagious diseases, and provision for vaccination has been made. So far as can be determined by observation, the health of the city has remained the same as it was in 1892. The number of deaths is relatively no greater.

STREETS.

The policy of the city for the past ten years in its street department has been adhered to. There has

been expended in new paving on Gore street and on Western avenue the sum of $21,000, and in repaving a portion of Cambridge street the sum of $8750. Forty-three streets or portions thereof have been graded with material varying in character from gravel to thorough macadam. Besides this, the sum of $8775.62 has been expended in patching so as to keep all the streets in a safe condition for public use. An appropriation has been made for the purchase of another stone crusher. An unusual number of crossings of North River flagging has been laid, and the demand for edgestones and brick sidewalks has been fully met. The streets have had three general cleanings and the paved streets have been cleaned every three weeks. Street watering has been attended to as usual. Fourteen streets aggregating 1.14 miles in length have been accepted. The total accepted street mileage is now 82.031. Huron street has been completed, from Concord avenue to Fayerweather street, with the exception of a narrow strip on its east side between Concord avenue and Sparks street, now in litigation. Besides the part finished at the charge of the Water Works there remains what lies between Fayerweather street and the railroad. This has been built to subgrade, and, upon the construction of the street railway tracks for which a location has been granted, should be finished. Provision has been made for widening Harvard street between Harvard and Quincy squares.

To put the streets in a condition to be desired would involve an immediate expenditure of $600,000,

a sum to be obtained only by a loan. This would add $50,000 to our annual expense for many years. Such an addition, in my judgment would not now be warranted. I believe the policy of the past, of paying for street work without borrowing under which the improvement in our streets has been distinct, should be continued.

RECOMMENDATIONS.

1. I recommend that the charge of all public pleasure grounds not controlled by the Water Board and all grounds about city buildings, and the care of trees and shrubs in the public highways and about city buildings be placed under the control of the Park Commissioners;

2. That you give attention to the subject of improving the approaches to the city on the water sides by the construction of more suitable bridges in place of some now used and by the widening of streets leading therefrom;

3. That the legislature be asked for authority to borrow for park purposes a sum not exceeding $100,000 a year for five years, beginning in the year 1895;

4. That the legislature be asked to remove the restrictions contained in the Act of 1884, upon the city's use of the water stored in the Stony Brook basin;

5. That the legislature be asked for authority to issue $1,000,000 in bonds for the purpose of further utilizing the city's water supply.

6. That sewers be built to relieve that part of the

city in and near Kendall square from the effects of the drainage now emptied into Broad Canal, and that then the Canal be dredged;

7. That land be purchased for new fire engine houses in Wards 2 and 5;

8. That a fire engine be purchased to be kept in the new engine house in Ward 1;

9. That land be bought and a new primary school house be built in Ward 3, and that land be secured for a new school-house in Ward 5;

10. That the lot of land in rear of the English High School be secured;

11. That Wyeth street be widened and extended from Garden street to Lambert avenue, in accordance with a plan already approved;

12. That you consider the expediency of watering streets without contributions from abutters;

13. That counsel be employed during the year to assist in criminal prosecutions in the district court;

14. That you consider the expediency of publishing the town and proprietor's records of Cambridge;

15. That authority be given to the Board of Cemetery Commissioners to extend the Soldiers' Lot as it may deem best, and that it be determined who shall be buried therein;

16. That the ordinances be amended so as to prevent more effectually the sale of impure ice for domestic purposes;

17. That the question of placing certain wires in underground conduits receive your earnest attention.

Gentlemen of the City Council:

We are expected to transact the business of 80,000 people in their interest. Integrity of purpose, wisdom in deliberation and unselfishness in action are needed. The Divine guidance has been invoked, the oath of office taken and our resolutions made. Beginning, I am sure, with confidence in each other, let us hope to deserve the confidence of our fellow citizens by a faithful performance of duty.

ANNUAL REPORTS.

ANNUAL REPORT OF THE CITY AUDITOR.

CITY AUDITOR'S OFFICE,
CAMBRIDGE, December 1, 1893.

To the Honorable the City Council: —

The undersigned respectfully submits the annual statement of the receipts and expenditures of the City of Cambridge for the fiscal year beginning on the first day of December, 1892, and ending on the thirtieth day of November, 1893, together with a schedule of the city property.

Balance in the Treasury November, 30th, 1892			$128,453 52
The receipts from all sources from December 1st, 1892 to November 30th, 1893, were as follows: —			
From City Departments		$149,735 83	
Water Works		263,174 73	
Taxes: —			
City	$1,254,634 44		
Corporation	69,354 25		
National Bank	17,980 27		
Sale Surplus	123 95		
		1,342,092 91	
Temporary Loans in anticipation of taxes		541,850 00	
Sale of Bonds:			
For extension of Front Street as an avenue to Harvard Bridge	$10,000		
Building Engine Houses	40,000		
Extension of Water Works	150,000		
		200,000 00	
Perpetual Care of Lots in Cambridge Cemetery		1,787 25	
Commissioners of Sinking Funds for payment of Funded Debt, maturing in 1893		273,000 00	
			2,771,640 72
Total receipts			$2,900,094 24

Amount carried forward			$2,900,094 24
The payments have been as follows : —			
For City Departments		$1,408,862 82	
Water Works		430,846 12	
Abatements of Taxes		24,678 10	
Cemetery Fund (invested)		1,787 25	
City Debt : —			
City Loan due Jan. 1, 1893 .	$150,000 00		
Land Loan, due July 1, 1893 .	10,000 00		
Paving Loan, due July 1, 1893	100,000 00		
Street Loan, due July 1, 1893 .	13,000 00		
		273,000 00	
Taxes :			
County	$63,569 57		
Metropolitan Sewer	17,363 62		
National Bank	6,659 26		
State	77,850 00		
Sale Surplus (refunded) . .	151 94		
		$165,594 39	
Temporary Loans		541,850 00	
			$2,846,618 68
Balance in the Treasury			$53,475 56
The balance in the Treasury is subject to draft for amounts contracted for but not approved to the amount of . . .			48,459 88
Leaving a net balance in the Treasury of			5,015 68

For some of the unestimated expenses, bonds have been issued as follows :			
Engine Houses in Wards One and Four .		$40,000 00	
Extension and widening of Front Street as an avenue to Harvard Bridge . . .		10,000 00	
			$50,000 00

CITY FUNDED DEBT.

There has been a decrease in the City Funded Debt during the year by the payment of the following matured loans:—

City Loan, issued March 5th, 1863, and payable Jan. 1st, 1893, with interest at 5 per cent. per annum .	$150,000 00
Land Loan, issued July 1st, 1873, payable July 1st, 1893, with interest at 6 per cent. per annum	10,000 00
Paving Loan, issued July 1st, 1873, payable July 1st, 1893, with interest at 6 per cent. per annum	100,000 00
Street Loan, issued July 1st, 1873, payable July 1st, 1893, with interest at 6 per cent. per annum	13,000 00
	$273,000 00

There has been an addition to the City Funded Debt during the year as follows:—

Building Loan, registered bond dated Nov. 1st, 1893, payable in ten years, at an annual interest of four per cent.	$10,000 00
Building Loan, coupon bonds dated Nov. 1st, 1893, payable in ten years, at an annual interest of four per cent.	30,000 00
Harvard Bridge Loan, coupon bonds dated Aug. 1st, 1893, payable in 30 years, at an annual interest of four per cent.	10,000 00
	$50,000 00

	1892.	1893.	Increase.	Decrease.
Funded City Debt . . .	2,439,000 00	2,216,000 00		$223,000 00
Sinking Funds	772,280 01	632,815 14		139,464 87
Net Funded City Debt . .	1,666,719 99	1,583,184 86		$83,535 13

The following is a statement of the total funded debt of the city, with the rates of interest thereon :

Bridge Loan.

Date of Issue.	Rate of Interest.	When Due.	Amount.	Total.
Oct. 1, 1887	4 per cent.—30 yrs.	Oct. 1, 1917	$10,000 00	
July 1, 1888	4 " —30 "	July 1, 1918	100,000 00	
Sept. 1, 1888	4 " —30 "	Sept. 1, 1918	100,000 00	
Mar. 1, 1889	4 " —30 "	Mar. 1, 1919	115,000 00	
Nov. 1, 1890	4 " —30 "	Nov. 1, 1920	5,000 00	
July 1, 1891	4 " —30 "	July 1, 1921	60,000 00	
July 1, 1891	4 " —10 "	July 1, 1901	15,000 00	
Aug. 1, 1893	4 " - 30 "	Aug. 1, 1923	10,000 00	$415,000 00

Building Loan.

May 2, 1892	4 per cent.—10 yrs.	May 2, 1902	$20,000 00	
Nov. 1, 1893	4 " —10 "	Nov. 1, 1903	40,000 00	$60,000 00

Cambridge Cemetery Loan.

Aug. 1, 1885	4 per cent.—20 yrs.	Aug. 1, 1905		$65,000,00

Land Loan.

Aug. 1, 1888	4 per cent.—10 yrs.	Aug. 1, 1898		$83,000 00

Municipal Loan.

April 1, 1885	4 per cent.—10 yrs.	April 1, 1895		$200,000 00

Paving Loan.

July 1, 1874	6 per cent.—20 yrs.	July 1, 1894	$130,000 00	
July 1, 1775	6 " —20 "	July 1, 1895	25,000 00	
Nov. 1, 1892	4 " —10 "	Nov. 1, 1902	50,000 00	$205,000 00

Amount carried forward $1,028,000 00

Amount brought forward $1,028,000 00

School-House Loan.

Date of Issue.	Rate of Interest.	When Due.	Amount.	Total.
May 1, 1890	4 per cent.—10 yrs.	May 1, 1900	$100,000 00	
Jan. 1, 1891	4 " —10 "	Jan. 1, 1901	100,000 00	
July 1, 1891	4 " —10 "	July 1, 1901	60,000 00	
Nov. 1, 1892	4 " —10 "	Nov. 1, 1902	20,000 00	$280,000 00

Sewer Loan.

Oct. 1, 1875	6 per cent.—20 yrs.	Oct. 1, 1895	$20,000 00	
July 1, 1876	6 " —20 "	July 1, 1896	29,000 00	
Nov. 1, 1886	3½ " —10 "	Nov. 1, 1896	25,000 00	
July 1, 1873	6 " —30 "	July 1, 1903	136,000 00	
July 1, 1874	6 " —30 "	July 1, 1904	295,000 00	
July 1, 1875	6 " —30 "	July 1, 1905	144,000 00	
Nov. 1, 1887	4 " —20 "	Nov. 1, 1907	30,000 00	
Nov. 1, 1889	4 " —20 "	Nov. 1, 1909	22,000 00	
May 1, 1890	4 " —20 "	May 1, 1910	15,000 00	
July 1, 1891	4 " —20 "	July 1, 1911	15,000 00	$731,000 00

Street Loan.

May 2, 1892	4 per cent.—10 yrs.	May 2, 1902.		$5,000 00

Street Widening Loan.

Nov. 1, 1889	4 per cent.—10 yrs.	Nov. 1, 1899	$8,000 09	
July 1, 1873	6 " —30 "	July 1, 1903	10,000 00	
July 1, 1874	6 " —30 "	July 1, 1904	90,000 00	
July 1, 1875	6 " —30 "	July 1, 1905	14,000 00	$122,000 00

TOTAL FUNDED CITY DEBT $2,216,000 00

THE FUNDED WATER DEBT.

There has been an addition to the Water Debt of the City during the year of $150,000.00, caused by the issue of coupon bonds as follows:—

Water Loan, coupon bonds dated Feb. 1st, 1893, payable in twenty years at an annual interest of four per cent. . .	$100,000 00
Water Loan, registered bond dated Aug. 1st, 1893, payable in twenty years at an annual interest of four per cent. .	15,000 00
Water Loan, coupon bonds dated August 1st, 1893, payable in twenty years at an annual interest of four per cent. .	35,000 00
	$150,000 00

	1892.	1893.	Increase.	Decrease.
Funded Water Debt . .	$1,711,500 00	$1,861,500 00	$150,000 00	
Sinking Fund of Water Works	602,019 27	686,867 26	84,847 99	
Net Funded Water Debt .	$1,109,480 73	$1,174,632 74	$65,152 01	

Following is a statement of the total funded water debt of the city, with rates of interest thereon:—

Date of Issue.	Rate of Interest.	When Due.	Amount.	Total.
April 1, 1874	6 per cent.—20 yrs.	April 1, 1894	$150.000 00	
Nov. 1, 1884	4 " —10 "	Nov. 1, 1894	36,000 00	
April 1, 1875	6 " —20 "	April 1, 1895	160,000 00	
July 1, 1876	6 " —20 "	July 1, 1896	103 000 00	
July 1, 1877	6 " —20 "	July 1, 1897	16,000 00	
Juiy 1, 1878	5 " —20 "	July 1, 1898	12,500 00	
Nov. 1, 1886	3½ " —20 "	Nov. 1, 1906	43,000 00	
Oct. 1, 1887	4 " —20 "	Oct. 1, 1907	90,000 00	
Nov. 1, 1887	4 " —20 "	Nov. 1, 1907	22,000 00	
July 1, 1888	4 " —20 "	July 1, 1908	46 000 00	
Aug. 1, 1888	4 " —20 "	Aug. 1. 1908	25,000 00	
July 1, 1889	4 " —20 "	July 1, 1909	20.000 00	
May 1, 1885	4 " —25 "	May 1, 1910	288,000 00	
July 1, 1890	4 " —20 "	July 1, 1910	75,000 00	
Sept. 1, 1890	4 " —20 "	Sept. 1, 1910	125,000 00	
Jan. 1, 1891	4 " —20 "	Jan. 1, 1911	20,000 00	
April 1, 1886	3½ " —25 "	April 1, 1911	100,000 00	
July 1, 1886	3½ " —25 "	July 1, 1911	75,000 00	
Oct. 1, 1891	4 " —20 "	Oct. 1, 1911	35,000 00	
Jan. 1, 1892	4 " —20 "	Jan. 1, 1912	150,000 00	
May 2, 1892	4 " —20 "	May 2, 1912	75,000 00	
Nov. 1, 1892	4 " —20 "	Nov. 1, 1912	45,000 00	
Feb. 1, 1893	4 " —20 "	Feb. 1, 1913	100,000 00	
Aug. 1, 1893	4 " —20 "	Aug. 1, 1913	50,000 00	$1,861,500 00

Recapitulation.

Amount of funded City Loan upon which interest is at 6 per cent.	$893,000 00	
Amount of funded City Loan upon which interest is at 4 per cent.	1,298,000 00	
Amount of funded City Loan upon which interest is at 3½ per cent.	25,000 00	
		$2,216,000 00
Amount of Water Loan upon which interest is at 6 per cent.	$429,000 00	
Amount of Water Loan upon which interest is at 5 per cent.	12,500 00	
Amount of Water Loan upon which interest is at 4 per cent.	1,202,000 00	
Amount of Water Loan upon which interest is at 3½ per cent.	218,000 00	
		$1,861,500 00

Temporary loans for the past ten years, and interest paid upon the same:—

Year.	Temporary Loan.	Interest paid upon the Loan.
1884	$540,000	$15,795 37
1885	300,000	13,790 52
1886	450,000	5,653 83
1887	555,000	9,222 24
1888	400,000	9,497 36
1889	490,000	5,919 54
1890	425,000	7,570 57
1891	465,000	10,796 25
1892	516,000	8,015 51
1893	541,850	11,560 32

The Trust Funds

Assumed by the city are held by trustees, and interest is paid upon them at the rate of six per cent. annually, as follows:—

Name of Fund.	Amount.	Interest.	
Daniel White Charity Fund.....	$5,000	at 6 per cent.	$300
Dowse Institute Fund.....	10,000	at 6 per cent.	600
Sanders Temperance Fund.....	10,000	at 6 per cent.	600
	$25,000		$1,500

Cemetery Fund.

Amount of Fund Nov. 30th, 1892, ...		$25,947 96
RECEIVED.		
For perpetual care of lots in Cambridge Cemetery	$1,787 25	
Interest accumulations	1,068 32	
		2,855 57
		$28,803 53
The fund is held in trust and is invested as follows:—		
City of Cambridge Bonds	$26,000 00	
Cambridge Savings Bank	1,212 54	
Cambridgeport Savings Bank	1,590 99	
Amount of Fund Nov. 30th, 1893		$28,803 53

Commissioners of Sinking Funds.

Amount of Funds Nov. 30th, 1892	$772,289 01
RECEIVED.	
From City Treasurer, being amount appropriated by the City Council to be derived from taxation . . .	103,730 00
Interest accumulations	29,805 13
	$905,815 14
EXPENDED.	
For Matured Funded City Debt	273,000 00
Amount of Funds Nov. 30th, 1893	$632,815 14

Trustees of Sinking Fund of Water Works.

Amount of Fund Nov. 30th, 1892	$602,019 27

RECEIVED.

From City Treasurer, for amount due and appropriated by the City Council from the revenue of the Water Works	59,902 50
Interest accumulations	24,490 82
Unexpended revenue of Water Works	454 67
Amount of Fund Nov. 30th, 1893	$686,867 26

Abatements—Taxes.

No appropriation is made for abatements, as the Assessors are expected to allow in the overlay an amount sufficient to cover the same.

The overlay for 1893 was	$26,964 70
The total amount of tax abatements allowed was . . .	24,678 10
Balance available for city purposes	$2,286 60

The abatements allowed by the City Collector on certificates of the Assessors were as follows:—

	Real.	Personal.	Polls.	Total.
Tax of 1889		$313 60	$6 00	$319 60
" 1890		112 32	25 00	137 32
" 1891	$168 95	511 40	16 00	696 35
" 1892	1,139 28	5,633 84	64 00	6,837 12
" 1893	5,597 79	10,917 92	172 00	16,687 71
	$6,906 02	$17,489 08	$283 00	$24,678 10

Taxes.

The amount of taxes assessed by the Board of Assessors on the real and personal estates and polls of Cambridge, for the year 1893, was as follows:—

Valuation of real estate	$58,782,900
Valuation of personal estate	17,511,089
	$76,293,989
Assessed at $16.40 per $1000 gives	$1,251,221 42
22,752 polls at $2.00	45,504 00
Bank stock (non-resident separately assessed)	6,656 94
	$1,303,382 36

This tax is divided as follows :—

For City purposes*	$1,110,249 81
County assessments	63,569 57
Overlay	26,964 70
State assessments	77,850 00
State charge for non-resident bank stock	6,656 94
Additional assessments	727 72
Metropolitan Sewer Tax	17,363 62
	$1,303,382 36

Increase in number of polls since last year :—

811 polls at $2.00	$1,622 00
Increase in real estate valuation	2,114,800 00
Decrease in personal valuation	176,506 00
Gain in valuation since last year	$1,939,916 00

Number of houses in 1893	11,768
Number of houses in 1892	11,359
Number of houses built during the past year	409
Number of horses assessed	5,128
Number of cows assessed	481
Number of swine assessed	85

*To meet the city expenses the income from various departments is added to this sum raised by taxation.

Following are the usual comparative tables representing the figures included in the Assessors' warrant to the City Treasurer as of May 1, 1893, the items being a transcript from the books of the Assessors :—

Polls and Valuation of Polls and Estates, May 1, 1891.

Wards.	Polls	Valuation of Polls	Personal.	Real Estate.	Total, Real and Personal	Dwellings.	Total Tax.
One.....	3,298¼	$6,596 50	$6,272,760	$14,029,600	$20,302,360	2,146	$321,283 08
Two	5,970½	11,941 00	4,349,810	13,180,500	17,530,310	2,897	283,660 80½
Three	3,683¾	7,367 50	1,748,300	8,183,900	9,932,250	1,578	161,322 60
Four	5,260½	10,521 00	2,808,400	11,268,900	14,077,300	2,864	228,719 15
Five	2,435¼	4,870 50	1,266,000	7,473,500	8,739,500	1,447	140,322 75
Total ...	20,648¼	$41,296 50	$16,445,270	$54,136,400	$70,581,670	10,932	$1,135,318,38½

Polls and Valuation of Polls and Estates, May 1, 1892.

Wards.	Polls.	Valuation of Polls.	Personal.	Real Estate.	Total, Real and Personal	Dwellings.	Total Tax.
One	3,450¼	$6,900 50	$6,385,265	$14,711,700	$21,096,965	2,231	$344,451 94
Two	6,323½	12,647 00	4,648,730	13,574,600	18,223,330	2,988	304,220 28
Three	3,799¾	7,599 50	2,108,800	8,531,900	10,640,700	1,594	177,850 70
Four	5,456½	10,913 00	3,007,400	11,679,100	14,686,500	2,952	245,897 00
Five	2,524	5,048 00	1,470,000	8,122,600	9,592,600	1,594	158,529 60
Total ...	21,554	$43,108 00	$17,620,195	$56,619,900	$74,240,095	11,359	$1,230,949 52

Polls and Valuation of Polls and Estates, May 1, 1893.

Wards.	Polls	Valuation of Polls.	Personal.	Real Estate.	Total, Real and Personal	Dwellings.	Total Tax.
One	3,691	$7,382 00	$6,512,745	$15,358,100	$21,870,845	2,333	$366,063 86
Two	6,667	13,334 00	4,434,720	13,975,100	18,409,820	3,089	315,255 05
Three	3,867	7,734 00	1,953,124	8,898,100	10,851,224	1,601	185,694 07
Four.....	5,542	11,084 00	2,866,800	11,904,900	14,771,700	2,983	253,339 88
Five	2,722	5,444 00	1,732,800	8,645,300	10,378,100	1,762	175,644 84
Total....	22,489	$44,978 00	$17,500,189	$58,781,500	$76,281,689	11,768	$1,295,997 70

The valuation of estates in this city, for the years hereinbefore mentioned, are the same as originally made by the Board of Assessors, during those years, and the same figures were reported by that board to the Tax Commissioners for each of the years respectively. These valuations were subject to changes in each year, after such report was made, as shown by the following :

Net valuations of estates in the City of Cambridge for the past three years, after adding the amounts of all supplementary warrants and deducting therefrom all abatements :—

Year.	Total Valuation.	Abatements.	Net Valuation.
1891	$70,676,684	$1,040,742	$69,635,942
1892	74,456,704	1,763,416	72,693,288
1893	76,321,989	1,007,054	75,314,935
	$221,455,377	$3,811,212	$217,644,165

Borrowing Capacity.

		3) $217,644,165
Average net valuation for 1891, 1892 and 1893 . . .		$72,548,055

This last sum represents the amount upon which the limit of the rate of taxation, and also of municipal indebtedness is fixed under the provisions of Chapter 312 of the Acts of the year 1885.

2½ per cent. on same		$1,813,701 37
Net funded City Debt		1,583,184 86
Leaving a margin of		$230,516 51
To which may be added the exemptions allowed by the Legislature on account of the		
Harvard Bridge and Avenue	$400,000 00	
Public Parks	500,000 00	900,000 00
Borrowing capacity for 1894		$1,130,516 51

"ACTS OF 1885, CHAPTER 312.

"AN ACT TO LIMIT MUNICIPAL DEBT OF AND THE RATE OF TAXATION IN CITIES.

"Be it enacted, etc., as follows:—

"SECTION 1. The taxes assessed on property in any city, except the city of Boston, exclusive of state tax, county tax and sums required by law to be raised on account of the city debt, shall not exceed in any year twelve dollars on every one thousand dollars of the average of the assessors' valuations of the taxable property therein for the preceding

three years, the valuation being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void.

"SECTION 2. The limit of indebtedness of cities shall hereafter be two and one-half per cent. on the average valuation prescribed in Section one of this act."

TAX LEVY

Average net valuation for 1891, 1892 and 1893	$72,548,055
	12
	145096110
	72548055
Assessed at $12 per $1000 gives	$870,576,660

Which is the legal limit of taxation for municipal purposes for 1893, outside of the Sinking Fund requirements, Interest on the Debt and State and County Tax, unless advantage is taken of the following Legislative Act of 1893:—

"ACTS OF 1893, CHAPTER 247.

"AN ACT AUTHORIZING ASSESSORS IN CITIES OF LESS THAN ONE HUNDRED THOUSAND INHABITANTS TO USE THE VALUATION OF THE YEAR PRECEDING AS A BASIS OF TAXATION.

"Be it enacted, etc., as follows:—

"SECTION 1. In every city containing less than one hundred thousand inhabitants the taxes assessed on property, exclusive of State Tax, County Tax and sums required by law to be raised on account of City Debt, shall not exceed in any year twelve dollars on every one thousand dollars of the assessors' valuation of the taxable property therein for the preceding year, said valuation being first reduced by the amount of all abatements allowed thereon previous to the thirty-first day of December in the year preceding said assessment, and any order or appropriation requiring a larger assessment than is herein limited shall be void; but the city council of any city coming within the provisions of this Act may, in any year, decide that the taxes assessed shall be raised in accordance with the provisions of section one of chapter three hundred and twelve of the Acts of the year eighteen hundred and eighty-five."

In which case the net valuation for 1893 being	$75,314,935
	12
	150629870
	75314935
Assessed at $12 per $1000. gives	$903,779,220
Average valuation for 1891, 1892 and 1893	870,576,660
Increase in amount which can be raised by new Act . .	$33,202,560

Statement of the valuations of the personal property and real estate of the city of Cambridge, with the number of polls, dwellings and rate of taxation for the past ten years :—

Year.	Polls.	Personal.	Real Estate.	Total.	Dwellings.	Rate per $1,000.
1884	15,399¼	$12,259,491	$41,289,200	$35,548,691	8,781	$16 80
1885	16,036	12,758,255	42,588,300	55,346,555	9,106	15 50
1886	16,534½	14,490,470	44,955,200	59,445,570	9,398	15 00
1887	17,139¼	13,358,910	46,344,700	59,703,610	9,761	16 00
1888	18,086¾	14,296,740	48,420,600	62,717,340	9,927	15 00
1889	18,307½	14,960,100	50,324,175	65,284,275	10,222	16 00
1890	19,221¾	15,339,925	52,235,000	67,574,925	10,615	15 60
1891	20,731¼	16,508,770	54,167,914	70,676,684	10,932	15 50
1892	22,013¼	17,687,595	56,668,100	74,355,695	11,359	16 00
1893	22,752	17,511,089	58,782,900	76,293,989	11,768	16 40

Abatements and discounts upon taxes for the past ten years, and amount of tax uncollected December 1, 1893 :—

Year.	Total Tax.	Total Abatement.	Total Discounts.	Amount of Tax uncollected Dec. 1, 1893.
1884	$937,938 64	$11,210 31	$32,926 83	
1885	895,012 06	14,174 11	32,781 78	
1886	930,228 50	17,497 00	32,532 57	
1887	995,964 90	15,443 74	26,054 53	
1888	982,829 50	21,667 20	25,366 53	
1889	1,088,374 60	20,982 71	28,081 09	$12,568 00
1890	1,099,741 38	20,966 82	28,012 44	11,023 98
1891	1,143,712 67	21,343 12		12,349 00
1892	1,240,186 50	21,636 54		22,024 80
1893	1,303,639 84	24,678 10		174,138 28

Balance Sheet of the City of Cambridge, December 1, 1893, Showing Assets and Liabilities.

	Assets.	Liabilities.
Cemetery Fund	$28,803 56	
City Debt (Contingent)		$200,000 00
City Lands (Salable)	12,069 59	
City of Cambridge (City Property)	2,639,509 98	
City Treasury (Cash)	53,475 56	
Daniel White Charity (Trust Fund)		5,000 00
Dowse Institute Fund (Trust Fund)		10,000 00
Funded City Debt		2,216,000 00
Funded Water Debt		1,861,500 00
Sanders Temperance Fund (Trust Fund)		10,000 00
Sinking Funds	632,815 14	
Sinking Fund of Water Works	686,867 26	
Taxes due the City	232,104 06	
Tax Liens	17,470 37	
Tax Sale "Surplus"		615 49
	$4,303,115 49	$4,303,115 49

Estimated Receipts.

Statement of the estimated receipts for the fiscal year ending Nov. 30, 1893, submitted to the City Council in February, 1893, and the actual receipts.

Titles of Accounts.	Estimated.	Actual.	Increase.	Decrease.
Bridge Department	$400 00	$752 68	$352 68	
Cemetery Department	19,000 00	20,302 46	1,302 46	
City Clerk Department	2,560 00	2,443 67		116 33
Fire Department	200 00	149 77		50 33
Incidental Expenses		1,070 06	1,070 06	
Inspection of Milk and Vinegar	150 00	145 00		5 00
Inspection of Wires	300 00	1,813 74	1,513 74	
Interest	4,500 00	6,655 53	2,155 53	
Law Department	1,500 00	1,500 00		
Overseers of the Poor:—				
Almshouse	2,000 00	1,239 65		760 35
Farm and Ledge	10,500 00	12,227 38	1,727 38	
House Offal	7,500 00	7,033 52		466 48
Outside Aid	3,500 00	4,381 33	881 33	
Police Department	5,000 00	5,890 41	890 41	
Public Property:—				
City Buildings	3,000 00	3,240 20	240 20	
New Engine House, Ward Four		55 00	55 00	
Public Library Department	4,000 00	4,640 48	640 48	
School Department:—				
Salaries	1,500 00	1,430 64		69 36
Text Books, etc	300 00	290 00		10 00
Sealer of Weights and Measures	600 00	366 99		233 01
Sewers:—				
Construction	11,000 00	18,528 26	7,528 26	
Maintenance	1,500 00	1,603 81	103 81	
State Aid	15,000 00	15,294 74	294 74	
Stationery and Printing	600 00	800 50	200 50	
Street Department:—				
Cleaning	2,000 00	1,157 00		843 00
Collection of Ashes	1,000 00	1,173 45	173 45	
Construction and Repairs		769 35	769 35	
Huron Street	1,302 00	1,302 00		
Maintenance		35 00	35 00	
Paving Western Avenue	500 00			500 00
Edgestones and Sidewalks	15,000 00	16,702 30	1,702 30	
Shade Trees, etc		44 35	44 35	
Watering	14,000 00	15,031 65	1,031 65	
Treasury Department	1,500 00	1,664 91	164 91	
Water Works:—				
Construction		4,754 19	4,754 19	
Fresh Pond Land		1,255 00	1,255 00	
Fresh Pond Reservoir		300 00	300 00	
Payson Park Reservoir		1,480 00	1,480 00	
Interest		644 45	644 45	
Maintenance		218 80	218 80	
Rates, Fines, etc	255,902 50	248,347 20		7,555 30
Supplies	7,100 00	6,175 09		924 91
Corporation Tax	60,000 00	69,354 25	9,354 25	
National Bank Tax	11,000 00	11,321 01	321 01	
Uncollected Taxes for 1892 and previous years	120,000 00	125,132 88	5,132 88	
	$583,914 50	$618,718 70	$46,338 17	$11,533 97
Increase	34,804 20			34,804 20
	$618,718 70	$618,718 70	$46,338 17	$46,338 17

Expenditures.

Statement of the expenditures for the fiscal year 1892–93, showing the increase or decrease from the amount appropriated by the City Council, February 24, 1893:—

Titles of Accounts.	Estimated Expenses.	Actual Expenses.	Increase.	Decrease.
Assessors Department	$11,000 00	$10,922 58		$77 42
Auditing Department	3,500 00	3,445 86		54 14
Bridge Department	13,400 00	12,032 30		1,367 70
Cemetery Department:—				
Current Expenses	17,000 00	16,749 77		250 23
New Gateway and Fence	2,500 00	2,712 82	212 82	
City Clerk Department	5,960 00	5,978 12	18 12	
City Messenger Department	2,600 00	2,525 96		74 04
Civil Service Department	250 00	240 50		9 50
Clerk of Committees Department	3,500 00	3,526 06	26 06	
Election Expenses: City Clerk	4,500 00	6,804 85	2,304 85	
Registrars of Voters	4,000 00	3,640 29		359 71
Superintendent of Public Buildings	1,200 00	1,599 74	399 74	
Engineering Department	10,500 00	9,644 00		856 00
Executive Department	4,700 00	4,641 04		58 96
Fire Department	62,000 00	61,627 27		372 73
Health Department	7,000 00	5,475 37		1,524 63
Incidental Expenses	20,000 00	10,847 07		9,152 93
Park Commissioners		339 13	339 13	
Inspection of Milk and Vinegar Department	1,300 00	1,298 76		1 24
Inspection and Supervision of Electric Wires Department	8,500 00	9,545 07	1,045 07	
Interest	138,000 00	136,877 92		1,122 08
Lamp Department	67,000 00	66,615 93		384 07
Law Department	3,500 00	3,206 19		293 81
Overseers of the Poor Department:—				
Almshouse	22,000 00	21,774 97		225 03
Farm and Ledge	8,000 00	7,665 28		334 72
House Offal	23,000 00	23,747 23	747 23	
Outside Aid	34,500 00	40,720 95	6,220 95	
Almshouse Fire Protection		2,161 74	2,161 74	
Assistant City Physician	1,500 00	1,500 00		
Police Department:—				
Current Expenses	107,000 00	107,736 80	736 80	
Police Signal System, District One	3,850 00	3,845 00		5 00
Public Library Department:—				
Current Expenses	14,000 00	14,585 44	58544	
Public Property:—				
Care and Repair:—				
City Buildings	20,000 00	20,336 99	336 99	
School Houses	43.000 00	43,254 11	254 11	
Construction and Alteration:—				
New Engine House, Ward One		5,641 42	5,641 42	
New Engine House, Ward Three	10,448 56	10,447 55		1 01
New Engine House, Ward Four		15,863 31	15,863 31	
New School House, Ward Two	15,000 00	12,967 35		2,032 65
Old High School House	1,500 00	1,500 00		
Police Station, Ward Three	10,000 00	11,075 00	1,075 00	
Putnam School House		670 00	670 00	
Sanitary Arrangements, Schools	3,000 00	3,549 14	549 14	
Wellington School House	11,950 00	11,947 25		2 75
Furniture and Furnishings:—				
Bridge School		797 22	797 22	
Manual Training School	1,500 00	1,495 45		4 55
New High School	500 00	496 50		3 50
Wellington School	2,000 00	2,000 00		
Incidentals	3,500 00	3,714 32	214 32	
Land for Engine House, Ward One	4,000 00	3,525 00		475 00
Land for School House, Ward Three	5,000 00			5,000 00
School Department:—				
Incidentals	1,600 00	1,639 49	39 49	
Salaries	222,000 00	220,611 62		1,388 38
Text-Books, etc	16,000 00	15,767 10		232 90
Amounts carried forward	$976,758 56	$991,332 83	$40,238 55	$2,5665 68

Titles of Accounts.	Estimated Expense.	Actual Expense.	Increase.	Decrease.
Amount brought forward	$976,758 56	$991,332 83	$40,238 55	$25,665 68
Sealer of Weights and Measures Dep't	1,600 00	1,654 93	54 93	
Sewer Department:—				
Construction	20,000 00	23,317 37	3,317 77	
Maintenance	23 000 00	17,279 67		5,720 33
Sinking Fund Department	104,095 00	104,095 00		
State Aid	26,000 00	25,469 80		530 20
Stationery and Printing	2,600 00	2,533 89		66 11
Street Department:—				
Bridges	4,500 00	4,374 93		125 07
Cleaning Streets	23,000 00	21,994 83		1,005 17
Collection of Ashes	15.000 00	15,688 38	688 38	
Construction and Repairs	50,000 00	69,844 16	19,844 16	
Front Street Filling and Grading	2,395 21	2,395 21		
Extensions and Widenings:—				
Front Street		6,963 67	6,963 67	
Huron Street	11,535 32	8,691 41		2,843,91
Main Street		841 40	841 40	
Nor h Avenue	2,021 80	1,979 69		42 11
Maintenance	40,000 00	10,882 83		29,117 17
Paving:—				
Cambridge Street	7,650 00	8,748 95	1,098 95	
Gore Street		9,999 49	9,999 49	
Western Avenue	12,000 00	10,956 33		1,043 67
Edgestones and Sidewalks	27,500 00	28,697 01	1,197 01	
Shade Trees and Public Grounds	7,000 00	6,952 72		47 28
Watering	21.000 00	21,989 32	989 32	
Treasury Department	12,500 00	12,179 00		321 00
Water Works Department:—				
Construction (General Account)	45,000 00	49,885 02	4,885 02	
Construction (Fresh Pond Land Acc't)	84,604 74	61.038 37		23,566 37
Construction (Fresh Pond Reservoir)	65,000 00	86,809 94	21,809 94	
Construction (Payson Park Reservoir)	40,000 00	35.733 98		4.266 02
Construction (StonyBrook Water Supply)	3.854 70	1,993 27		1,861 43
Interest	80,000 00	77,925 00		2,075 00
Maintenance	46,000 00	47,156 07	1,156 07	
Rates, Fines, etc. (Abatements)	3.500 00	3,131 65		368 35
Rates, Fines, etc. (Refunds)	1,500 00	1,687 34	187 34	
Sinking Fund	59,902 50	60.357 17	454 67	
Supplies	7,000 00	5,122 86		1,877 14
Supplies (Abatements)	100 00	5 45		94 55
Allowance for uncollected taxes, 1893	130,000 00	174,138 28	44,138 28	
	$1,956,617 83	$2,013,847 22	$157,864 95	$100,635 56
Increase	57,229 39			57,229 39
	$2,013,847 22	$2,013,847 22	$157,864 95	$157,864 95

The following table represents the unestimated revenue appropriated during the year in addition to the regular appropriations :

Incidental Expenses	$1,070 06
Inspection of Wires Dept.	1,513 74
Public Library Dept.	640 48
Police Dept.	890 41
Public Property	240 20
Sewers, Construction	7,528 26
Street Dept., Watering	1,031 65
Water Works, Construction	4,754 19
Fresh Pond Land	1,255 00
Fresh Pond Reservoir	300 00
Interest	644 45
Maintenance	218 80
	$20,087 24

After the annual appropriation had been made the following appropriations were made and a City Debt was authorized to cover them:

Addition to Public Library Building	$20,000 00
New Engine House in Ward One	12,000 00
New Engine House in Ward Four	27,500 00
Extension of Front Street	10,000 00
Fresh Pond Reservoir	15,000 00
	$84,500 00

TRANSFERS.

The following transfers were made from the appropriations mentioned, to make up deficiencies occurring in the appropriations to which transfers were made, viz.:—

From the Appropriation for	Amounts.	To the Appropriation for	Amounts.
Bridge Department	$1,000 00	Overseers of the Poor, Outside Aid Department	$1,000 00
Cemetery Department	212 82	New Gateway and Fence	212 82
Health Department	1,550 00	Overseers of the Poor, Outside Aid Department	1,000 00
		Sanitary Arrangements for Schools	550 00
		City Clerk's Department	18 12
Incidental Expenses	10,096 17	Clerk of Committees' Dep't	26 06
		Election Expenses, City Clerk	2,500 00
		Health Department	25 37
		Overseers of the Poor, Almshouse Fire Protection	2,500 00
		Park Commissioners	500 00
		Public Property:—	
		City Buildings	96 79
		School Houses	254 11
		Incidentals	214 32
		New School House, Ward 2.	1,800 00
		Putnam School House	670 00
		Sealer of Weights and Measures	150 00
		Street Department:—	
		Extension of Huron Street.	500 00
		Widening of Main Street	841 40
Public Property:—			
Land for Engine House, Ward 1	475 00	Election Expenses, Superintendent of Buildings	400 00
School Department:—		Police Station, Ward 3	75 00
Salaries	800 00	Bridge School Furnishings.	800 00
Text Books	75 00	School Dep't Incidentals	75 00
Sewers, Construction	7,547 85	Overseers of the Poor:—	
		Outside Aid	4,220 95
		House Offal	747 23
		Sewers, Maintenance	1,779 67
		Paving, Cambridge Street	800 00
Sewers, Maintenance	7,500 00	Sewers, Construction	5,000 00
		Street Department:—	
		Edgestones and Sidewalk	1,000 00
Street Department:—		Paving Cambridge Street	1,500 00
Cleaning	1,000 00	Construction and Repairs	1,000 00
Const'n and Repairs	2,000 00	Paving Gore Street	2,000 00
Maintenance	29,100 00	Collection of Ashes	750 00
		Construction and Repairs.	20,850 00
		Extension of Huron Street.	1,500 00
		Paving Gore Street	6,000 00
Paving Cambridge St.	1,200 00	" " "	1,000 00
		Edgestones and Sidewalk.	200 00
Paving Western Ave.	1,000 00	Paving Gore Street	1,000 00
Water Works:—		Water Works:—	
Const'n F. P. Land	6,640 77	Construction, General	130 83
		Fresh Pond Reservoir	6,509 94
Interest on Water Loan.	1,124 61	Maintenance	937 27
		Rates, Fines, etc., Refunds.	187 34
	$71,322 22		$71,322 22

APPROPRIATIONS AND EXPENDITURES.

The Amount of the Several Appropriations Made by the City Council During the Year — The Transfers from One Appropriation to Another—The Expenditures in Detail Under Each Appropriation, and the Unexpended Balances, Nov. 30, 1893.

Assessors' Department.

Appropriations			$11,000 00
EXPENDED.			
For Salaries of Assessors :—			
Joshua G. Gooch	$1,600 00		
Andrew J. Green	1,600 00		
Joseph Whittemore	1,600 00		
Assistant Assessors :—			
Warren Ivers	284 00		
John M. Davis	316 00		
D. B. Shaughnessey	160 00		
R. W. Sutton	316 00		
Daniel J. Hayes	284 00		
Clerks :—			
Lizzie E. Estes	720 00		
Ida G. Wellington	600 00		
Temporary Clerks	1,384 08		
		$8,864 08	
Advertising, James Cox . . .		21 39	
Abstracts :—			
Byron Boyd	28 50		
Lillian A. Balch	184 20		
		212 70	
Binding Documents, E. W. Bettinson		193 00	
Car Tickets, West End Street Railway Co.		25 00	
Directories:—			
E. F. Hunt & Co.	3 00		
Sampson, Murdock & Co. . .	5 00		
		8 00	
Carriage hire, M. J. Fairbanks .		12 00	
Examining records, Kern & McLoud		15 00	
Stationery and printing:—			
James H. Cox	9 00		
Cotton & Gould	99 85		
Harvard Printing Co. . . .	1,199 99		
E. W. S. Jones	120 75		
G. B. Lenfest	46 25		
Stationery Department . . .	90 57		
		1,566 41	
Subscription, *Banker and Tradesman*		5 00	
Total			10,922 58
Balance unexpended . . .			$77 42

Auditing Department.

Appropriation			$3,500 00
EXPENDED.			
For Salaries :—			
Auditor, Harry T. Upham	$2,100 00		
Clerk, Esther L. Cogan	782 50		
Temporary Clerk	27 75		
		$2,910 25	
Binding reports, J. H. H. McNamee		3 50	
Directory, E. F. Hunt & Co.		3 00	
Fan motor, N. W. Turner Co.		25 00	
Furniture, Phillips Bros. & Co.		16 00	
Metal Fittings for vault, Geo. H. Richter & Co.		200 00	
Sharpening erasers		45	
Stationery and printing :—			
Cotton & Gould	54 07		
James H. Cox	74 75		
L. W. Poole	4 50		
Stationery Department	63 34		
John Wilson & Son	91 00		
		$287 66	
Total			3,445 86
Balance unexpended			$54 14

Bridge Department.

Appropriation			13,400 00
Transferred to the Overseers of the Poor			1,000 00
			$12,400 00
RECEIVED.			
For Rent, wharfage, etc.		$752 68	
(The expenses of these bridges are divided equally between the cities of Boston and Cambridge, and the following amounts represent one-half the cost of maintenance.)			
Amount carried forward			$12,400 00

Amount brought forward . .			$12,400 00
	EXPENDED.		
For Salaries:—			
Bridge Commissioner and Harbor Master, Wm. J. Marvin . .	$883 41		
Clerk, Charles S. Parsons	250 00		
Asst. Engineer, F. P. Spaulding . . .	25 00		
Draw-tenders and Assistants	3840 00		
		4,998 41	
Cash expended for Sundries:—			
M. F. Corkery . .	276 15		
Jas. A. Gorman .	18 86		
Chas. S. Parsons .	67 97		
A. W. Smith . .	81 20		
N. E. Story . . .	98 39		
		542 57	
Current for Harvard Bridge Draw:—			
Cambridge Electric Light Co. . . .		150 00	
Fuel, Geo. M. Winslow & Co.		270 73	
Hose, Boston Woven Hose Co.		10 00	
Labor, Michael Smith		43 00	
Lights:—			
Boston Elec. Light Co.	600 02		
Cambridge Electric Light Co. . . .	1,273 66		
		1,873 68	
Lumber:—			
John S. Clary . .	219 04		
Geo. W. Gale Lumber Co.	8 41		
E. B. James & Co.	11 02		
John W.Leatherbee	95 61		
Geo. McQuesten & Co.	126 97		
E. D. Sawyer & Co.	8 63		
Amounts carried forward	$469 68	$7,888 39	$12,400 00

Amounts brought forward	$469 68		$7,888 39	$12,400 00
A. M. Stetson . .	44 44			
Wm. N. Wood & Co.	166 34			
			680 46	
Repairs:—				
Carpentry, Josiah Shaw		685 56		
Elec. Motor, Camb. Elec. Light Co.		151 70		
Fender guard, Wm. L. Miller . . .		1,123 50		
Iron Work, Miller & Shaw . . .	617 24			
A. M. Morton & Co.	28 85			
T. J. Emery . .	4 85			
		650 94		
Painting:—				
Clarence V. Hadley	3 00			
Thos. Knowles .	121 50			
D. T. Letterney & Co.	9 00			
		133 50		
Paving:—				
Payson & Co. .		62 87		
Plumbing:—				
W. H. Poole & Co.	6 85			
Edw. Moore & Co.	7 50			
		14 35		
Roof, John J. Blevins . . .		27 30		
			2,849 72	
Sprinkling Bridgeway			71 95	
Stationery, printing and postage:—				
City of Boston . .		13 97		
City of Cambridge .		2 80		
J. L. Fairbanks & Co.		5 11		
W. J. McGraw & Co.		2 00		
Rockwell & Churchill		8 63		
			32 51	
Stone work and paving blocks:—				
Austin Ford & Son.			36 54	
Amounts carried forward . . .			$11,559 57	$12,400 00

Amounts brought forward		$11,559 57	$12,400 00
For sundry supplies:—			
Burditt & Bynner .	17 61		
Dodge, Haley & Co.	36 96		
Perrin, Seamans & Co.	21 98		
Merrill, Dexter & Co.	19 00		
J. M. Price & Son .	46 95		
Nat'l Tufts . . .	9 28		
Gould & Cutler . .	8 03		
Sundry persons . .	45 75		
		205 56	
Teaming:—			
Chas. Linehan . .	150 17		
Chas. McMahon .	47 75		
John Quinn . . .	36 75		
		234 67	
Water Rates . . .		32 50	
Total			$12,032 30
Balance unexpended.			$367 70

Cemetery Department.

Appropriation	$17,000 00
Transferred to New Gateway . .	212 82
	$16,787 18

RECEIVED.

For Burials	$5,272 25
Care of lots	3,783 05
Foundations, brick graves, etc.,	1,467 16
Interest on Cemetery Fund . .	1,056 55
Rent	200 00
Sale of lots	7,915 23
Sundries	608 22
Total	$20,302 46

EXPENDED.

For Salaries of			
Superintendent, Chas. S. Childs	$1,300 00		
Foreman, Henry C. Hobbs . .	821 25		
Book-keeper, J. Watson Taylor	912 50		
Clerk, Edw. J. Brandon . . .	100 00		
Laborers	10,694 06		
		$13,827 81	
Amounts carried forward . . .		$13,827 81	$16,787 18

Amounts brought forward . .		$13,827 81	$16,787 18
For binding documents, J.H.H. McNamee		5 20	
Brooms, Stephen Adams . . .		10 00	
Carpentry:			
M. C. Beedle	16 55		
J. Q. A. Cate	27 48		
		44 03	
Car tickets, West End Street Railway Co.		25 00	
Canvas covers, Cousens & Pratt		20 16	
Carriage hire:—			
R. E. O'Brien	8 00		
Lake & Moynahan	14 00		
Daniel P. Shea	18 00		
		40 00	
Derrick, Wight & Scorgie . .		15 00	
Directory, W. A. Greenough & Co.		3 00	
Expressage, Hatch & Co. . .		5 90	
Fuel, Coleman Bros.		54 30	
Furniture, Worcester Bros. .		3 00	
Grain, Joseph Hall		121 41	
Harness and repairs, J. F. Nolan		32 00	
Horse, P. H. Dardis		150 00	
Horse-shoeing, Wm. Balmer .		30 45	
Labor on Gateway:—			
Morss & Whyte	5 80		
Jeffery Sullivan	36 00		
		41 80	
Lumber, lime and cement:—			
N. N. Stickney	62 78		
Berry & Ferguson	61 25		
		124 03	
Mason-work, J. Delany . . .		6 76	
Manure, John Doody		249 46	
Marble tablets, headstones, grave covers, etc.:—			
Joseph W. Grigg	74 82		
John J. Horgan	167 44		
Wm. L. Lockhart	6 00		
H. H. Mathews	145 00		
Alex McDonald & Son . .	120 00		
		513 26	
Amounts carried forward . . .		$15,322 57	$16,787 13

Amounts brought forward . .		$15,322 57	$16,787 13
For Plants, seeds, etc.:—			
Jos. Breck & Sons	12 00		
P. O'Brien & Son	92 50		
Shady Hill Nurseries . . .	25 05		
		129 55	
Removing snow, Street Dept.,		35 00	
Repairing roof, John J. Blevins		5 95	
Signs:—			
Clifford Hunting	2 50		
Eben Tucker	12 00		
		14 50	
Stationery, printing, and postage:—			
Amee Bros.	18 80		
Cambridgeport Diary Co. .	5 00		
Chas. S. Childs	34 00		
Cotton & Gould	30 08		
J. Frank Facey	51 50		
John Ford & Son	19 50		
Frost & Adams	1 16		
Harvard Printing Co. . . .	3 25		
		163 29	
Stone, John Doody		203 03	
Street sprinkling, Street Dept. .		103 00	
Teaming, John Doody . . .		332 11	
Telephone Rent and Tolls, N. E. Telephone Co.		80 10	
Tools, hardware and supplies:—			
Ames Plow Co.	6 37		
Burditt & Bynner	177 17		
Burrill & Dutton	1 70		
Chapman Carriage Co. . .	19 37		
Morss & Whyte	4 50		
Geo. O. Rollins	25 70		
Walworth Mf'g. Co. . . .	74 88		
D. J. Wild & Co.	39 12		
		348 81	
Water supply, Cambridge Water Works		11 86	
Total			$16,749 77
Balance unexpended . .			$37 41

Cemetery Department.

NEW GATEWAY.

Appropriation		$2,500 00
Transferred from Cemetery Dept.		212 82
		2,712 82

EXPENDED.

For Advertising, James Cox . .	$3 82	
Contract for New Gateway Austin Ford & Son . . .	2,668 00	
Labor, as per pay rolls . . .	39 50	
Sign, Clifford Hunting . . .	1 50	
Total		$2,712 82

City Clerk's Department.

Appropriation		$5,960 00
Transferred from Incidental Expenses		18 12
		$5,978 12

RECEIVED.

Fees from sundry persons . . .	$2,443 67

EXPENDED.

For Salaries:—			
City Clerk, W. W. Pike . . .	$3,000 00		
Asst. City Clerk, E. J. Brandon	1,349 95		
Clerks:—			
Anne Jacobs	138 15		
S. S. Jacobs	177 60		
S. S. & A. Jacobs	250 00		
Amanda Richardson . . .	64 50		
		4,980 20	
Advertising:—			
Camb. Chronicle Co. . . .	5 00		
James Cox	5 00		
F. S. Hill	6 00		
		16 00	
Amounts carried forward . . .		$4,996 20	$5,978 12

Amounts brought forward . .		$4,996 20	$5,978 12
For badges, A. W. Mitchell Mf'g Co.		15 00	
Binding, J. H. H. McNamee .		2 25	
Boxes, Charles E. Pierce & Co.		6 00	
Canvassing for births:—			
John M. Davis	72 00		
M. F. Ellis	45 00		
E. S. Getchell	54 00		
Warren Ivers	69 00		
Jas. E. Lennon	69 00		
		309 00	
Directory, E. F. Hunt & Co. .		3 00	
Expressage		4 95	
Newspapers:—			
F. L. Beunke	6 00		
Jas. Cox	2 00		
		8 00	
Posting and serving notices:—			
John M. Davis	60 80		
F. E. Shaw	42 00		
J. A. McLane	6 00		
		108 80	
Reporting births		195 75	
Stationery, Printing, etc.:—			
Cotton & Gould	50		
Jas. H. Cox	36 00		
John Ford & Son	60 25		
J. Frank Facey	48 00		
Harvard Printing Co. . . .	50 50		
E. W. S. Jones	16 75		
Stationery Department . .	104 57		
John Wilson & Son . . .	8 00		
J. M. Whittemore & Co. .	4 60		
		329 17	
Total			$5,978 12

City Messenger Department.

Appropriation			$2,600 00
EXPENDED.			
For Salaries:—			
City Messenger Francis L. Pratt	$1,800 00		
Assistants:—			
Wm. A. Walker	225 00		
Chas. M. Jones	172 00		
		$2,197 00	
Amounts carried forward . .		$2,197 00	$2,600 00

Amounts brought forward . . .		$2,197 00	$2,600 00
For car tickets, W. E. St. Railway Co.		50 00	
Directories:—			
E. F. Hunt & Co.	$6 00		
Sampson Murdock & Co. . .	5 00		
		11 00	
Expressage:—			
Hatch & Co.	62 40		
F. L. Pratt	95		
Savage & Son	2 10		
		65 45	
Letter box, W. H. Norris . .		15 82	
Pathfinder, F. L. Beunke . .		2 75	
Rent P. O. Box		4 00	
Stationery and Printing:—			
John Ford & Son	18 50		
Stationery Department . .	156 94		
		175 44	
Subscription, James Cox . .		2 00	
Tube and mouthpiece, F. M. Buffum		1 25	
Telephone Tolls, N. E. Telephone Co.		1 25	
Total			2,525 96
Balance expended . . .			$74 04

Civil Service Department.

Appropriation			250 00
EXPENDED.			
For Salary of clerk, Harry L. Lincoln		200 00	
Stationery and printing:— . .			
Cotton & Gould	3 50		
Chas. E. Pierce & Co. . . .	1 00		
Winkley, Dresser & Co. . .	36 00		
		40 50	
Total			240 50
Balance unexpended . .			$9 50

Clerk of Committees' Department.

Appropriation			$3,500 00
Transferred from Incidental Expenses			26 06
			$3,526 06

EXPENDED.

For Salaries :—			
Clerk of Committees, John McDuffie	$2,400 00		
Assistant, Eben W. Pike	878 33		
		3278 33	
Advertising, James Cox		1 74	
Car tickets, W.E.St. Railway Co.		5 00	
Directory, E. F. Hunt & Co.		3 00	
Newspapers, James Cox		2 00	
Numbering machine and stamps, L. W. Poole		14 25	
Stationery and printing:—			
Cotton & Gould	16 60		
James H. Cox	24 45		
Wm. H. Claflin & Co.	2 20		
Harvard Printing Co.	14 00		
Geo. H. Richter & Co.	28 09		
Stationery Dept.	74 65		
Winkley, Dresser & Co.	6 75		
		166 74	
Typewriter (exchange), Geo. H. Richter		55 00	
Total			$3,526 06

Election Expenses: City Clerk.

Appropriation			$4,500 00
Transferred from Incidental Expenses			2,500 00
			$7,000 00

EXPENDED.

For Precinct Officers		$4,348 50	
Police officers		292 00	
Bell ringers		28 00	
Clerical Assistance:—			
Anne Jacobs	$7 20		
S. S. & A. Jacobs	53 00		
Amanda Richardson	64 50		
		124 70	
Amounts carried forward		$4,793 20	$7,000 00

Amounts brought forward . .		$4,793 20	$7,000 00
For clerks at recount:—			
E. J. Brandon	$14 60		
Geo. M. Clukas	14 60		
Edw. A. Counihan	14 60		
Chas. H. Dodge	14 60		
W. H. Harding	14 60		
Harry L. Lincoln	14 60		
H. A. Penniman	11 30		
E. W. Pike	14 60		
Frank E. Shaw	14 60		
Henry Webber	14 60		
		142 70	
Advertising:—			
Camb. Chronicle Co. . . .	51 75		
James Cox	26 95		
Cambridge Democrat . . .	24 00		
F. S. Hill	47 75		
		150 45	
Barge hire:—			
John Nixon	78 00		
W. E. St. Railway Co. . .	55 00		
		133 00	
Boxes, Charles Place		12 00	
Car tickets, W. E. St. Railway Co.		10 00	
Carpentry, W. H. Norris . .		169 55	
Carriage hire:—			
C. W. Dailey	18 00		
M. J. Fairbanks	15 00		
J. E. Fabyan	15 00		
J. O. Whitten	3 00		
Whiting & Smith	9 00		
		60 00	
Election case, J. H. H. McNamee		1 10	
Expressage, Elliot & Duvey .		4 75	
Folding, stitching and binding, J. H. H. McNamee . . .		93 00	
Gas pipes, and fixtures, John P. Adams		18 67	
Hardware:—			
Burditt & Bynner	15 14		
F. A. White	2 00		
		17 14	
Amounts carried forward . .		$5,605 56	$7,000 00

Amounts brought forward . .		$5,605 56	$7,000 00
For labor, T. J. Denton		38 63	
Labor on ballot boxes:—			
Edmund Hoxie	$9 35		
E. Hubbard Barlow . . .	5 00		
		14 35	
Lettering ballot boxes, Clifford Hunting		75	
Paste, J. H. & J. P. Thayer & Co.		5 55	
Posting and serving warrants and notices:—			
John M. Davis	89 00		
Warren Ivers	4 00		
Fred A. Lull	5 00		
F. E. Shaw	13 00		
John A. White	15 00		
		126 00	
Refreshments:—			
M. R. Jones	56 00		
Henry G. Schwartz	3 00		
		59 00	
Stationery and Printing:—			
F. L. Beunke	45		
Cotton & Gould	86 19		
James H. Cox	94 00		
J. Frank Facey	49 75		
John Ford & Son	499 50		
Harvard Printing Co. . . .	136 00		
Stationery Dept.	80 12		
		955 01	
Total			$6,804 85
Balance unexpended . .			$195 15

Election Expenses—Registrars of Voters.

Appropriation			$4,000 00

EXPENDED.

For Salaries of Registrars of Voters and Clerk:—			
Isaac Bradford	$500 00		
Wm. J. Breen	500 00		
James Cox	500 00		
Frank H. Teele (clerk) . .	600 00		
Amounts carried forward .	$2,100 00		$4,000 00

Amounts brought forward . .		$2,100 00	$4,000 00
For Clerks:—			
Anne Jacobs	227 92		
Mary J. McGuigan . .	11 00		
Elizabeth A. McGinnis .	24 75		
		263 67	
Advertising:—			
D. A. Buckley	14 87		
Cambridge Democrat . .	10 00		
Cambridge Chronicle Co.	19 75		
James Cox	21 25		
F. S. Hill	10 50		
		76 37	
Binding voting lists:—			
E. W. Bettinson . . .	73 50		
J. H. H. McNamee . .	19 60		
		93 10	
Carpentry, W. H. Norris .		68 51	
Chair, Heywood Bros. & Co.		7 50	
Carriage hire, Whiting & Smith		21 00	
Directory, E. F. Hunt & Co.		3 00	
Expressage, Savage & Son .		25	
Lamp, Geo. F. Dickson . .		4 50	
Labor, T. J. Denton . . .		15 00	
Posting voting lists, etc.:—			
J. A. McLane	20 00		
John M. Davis	27 00		
		47 00	
Stationery and Printing:—			
Cotton & Gould	3 15		
E. W. S. Jones	23 00		
Stationery Dept.	4 98		
John Wilson & Son . .	909 26		
		940 39	
Total			$3,640 29
Balance unexpended .			$359 71

Election Expenses—Superintendent of Buildings.

Appropriation	$1,200 00
Transferred from land for Engine House—Ward One	400 00
	$1,600 00
Amount carried forward . .	$1,600 00

Amount brought forward . .			$1,600 00
EXPENDED.			
For brackets, gas fixtures, N. W. Turner Co.		$25 50	
Care of ward room, J. E. Ricker		50 00	
Carpentry, W. H. Norris .		444 21	
Expressage, J. R. & C. L. Hersum		2 50	
Fuel:—			
H. G. Jordan & Co. . .	8 43		
Baker, Hunnewell Co. .	10 76		
		19 19	
Glazing, J. H. & J. P. Thayer & Co.		7 20	
Lamps:—			
Cambridge Electric Light Co.	3 85		
George F. Dickson . .	5 50		
		9 35	
Preparing rooms for voting .		462 40	
Rent:—			
Chas. F. Beck Post 56 .	65 00		
E. L. Green	42 00		
St. John's Literary Institute	100 00		
Citizens' Trade Association	30 00		
Union Hall Association .	290 00		
Odd Fellows' Hall Association	40 00		
		567 00	
Supplies		12 39	
Total			$1,599 74
Balance unexpended .			$ 26

Engineering Department.

Appropriation			$10,500 00
EXPENDED.			
For salaries :—			
Engineer L. M. Hastings .	$3,000 00		
Assistants	5,917 31		
Clerk, Mary E. Rowen . .	313 00		
		$9,230 31	
Amounts carried forward .		$9,230 31	$10,500 00

Amounts brought forward .		$9,230 31	$10,500 00
For Atlas map, Geo. H. Walker & Co.		7 00	
Carriage hire, M. J. Fairbanks		5 00	
Car tickets, W. E. St. Railway Co.		100 00	
Cash expended, L. M. Hastings		1 00	
Carpentry:—			
Ira G. Hersey	$15 47		
W. H. Norris	57		
		16 04	
Expressage, Savage & Son .		3 45	
Figures, J. & J. Berry & Co.		25 00	
Hardware, tools:—			
Whittier Hardware Co. .	40		
F. A. White	15 52		
Buff & Berger	22 00		
		37 92	
Services estimating Brookline St. widening damages, A. B. Hopkins		10 00	
Stationery, printing and drawing materials:—			
Cotton & Gould . . .	3 05		
Cashman, Keating & Co.	8 15		
Jas. H. Cox	7 50		
Frost & Adams . . .	53 49		
James E. Moody . .	7 00		
L. W. Poole	1 50		
Stationery Dept. . . .	29 38		
Wadsworth, Howland & Co.	91 22		
		201 29	
Supplies, D. W. Hyde & Co.		6 99	
Total			$9,644 00
Balance unexpended .			$856 00

Executive Department.

Appropriation			$4,700.00
EXPENDED.			
For salaries of			
Mayor, Alpheus B. Alger (one month)	$291 67		
Mayor, William A. Bancroft (eleven months) . .	3,208 33		
Clerk, Edw. A. Counihan .	911 26		
		$4,411 26	
Binding dictionary, J. H. H. McNamee		3 00	
Carriage hire : —			
Lake & Moynahan . . .	9 00		
Whiting & Smith	29 50		
		38 50	
Car tickets, W. E. Street Railway Co.		40 00	
Cash expended for sundries :			
Wm. A. Bancroft . . .	3 50		
Edw. A. Counihan . . .	2 10		
		5 60	
Dictionary, Houghton, Mifflin & Co.		8 50	
Directory, E. F. Hunt & Co.		3 00	
Stationery and printing: —			
Cashman, Keating & Co. .	13 07		
Cotton & Gould	33 47		
James H. Cox	5 25		
John Ford & Son . . .	5 00		
Harvard Printing Co. . .	19 75		
Stationery Dept.	53 52		
		130 06	
Typewriter repairs: —			
Smith Premier Typewriter Co.		1 12	
Total			4,641 04
Balance unexpended .			$58 96

Fire Department.

Appropriation			$62,000 00
RECEIVED.			
For Board of horse	$120 77		
Old fuel wagon	20 00		
Old furniture	9 00		
		$149 77	
EXPENDED.			
For salaries : —			
Chief Engineer, T. J. Casey	$1,600 00		
District Chiefs : —			
N. W. Bunker	375 00		
C. W. Brackett	375 00		
W. B. Cade	375 00		
Permanent men as per pay rolls	32,750 12		
Call men as per pay rolls .	14,032 90		
Substitutes: —			
Geo. W. Butler	172 50		
J. P. Parsons	7 50		
Albert H. Wallace . . .	7 50		
		$49,695 52	
Apparatus and repairs: —			
Abbot, Downing Co. . .	$170 75		
C. Callahan Co.	24 50		
Wm. Campbell & Co. . .	93 21		
F. L. Chapman Estate . .	5 00		
Chapman Carriage Co. .	42 40		
J. Hinman	10 00		
F. Ivers & Son	16 90		
A. J. Jones	38 88		
John Lane	35 70		
Manchester Locomotive Works	203 54		
George McIntosh . . .	73 50		
Miller & Shaw	29 15		
Mogul Manufacturing Co.	22 00		
C. W. H. Moulton & Co. .	49 00		
Amounts carried forward .	$814 53	$49,695 52	$62,000 00

Amounts brought forward .	$814 53	$49,695 52	$62,000 00
George Patterson . . .	16 30		
Geo. O. Rollins	11 70		
Scrannage Bros.	5 00		
Chas. Waugh & Co. . .	8 90		
Sundry Persons	1 28		
		857 71	
For badges, H. W. Richards & Co.		24 00	
Brushes, brooms, dusters, etc.:—			
Chas. A. Austin & Co. .	30 00		
Chas. P. Keith . , . .	20 00		
Osborn Mfg. Co.	11 25		
F. A. White	13 50		
		74 75	
Buttons, Scovill Mfg. Co. .		13 50	
Carpentry:—			
I. P. Estes	3 00		
C. L. Weldon	9 29		
		12 29	
Carriage hire for committee:			
Chas. W. Dailey. . . .	13 00		
J. E. Fabyan	6 00		
M. J. Shea	13 00		
		32 00	
Clock repairs, Jas. A. Rice .		13 00	
Directory, E. F. Hunt & Co.		3 00	
Electric Lights, Cambridge Electric Light Co. . . .		44 20	
Expressage		22 30	
Fuel:—			
Baker-Hunnewell Co. . .	63 40		
L. G. Burnham & Co. . .	618 70		
Dennis, Thompson & Co. .	46 00		
J. A. Heaton	419 50		
H. G. Jordan & Co . . .	197 50		
Richardson & Bacon . .	58 50		
H. Wellington Co. . . .	75 50		
Wellington & Buck . . .	11 40		
		1,490 50	
Weighing Coal:—			
H. W. Brooks		6 75	
Amounts carried forward .		$52,289 52	$62,000 00

Amounts brought forward .		$52,289 52	$62,000 00
For furniture and furnishings:—			
D. W. Hyde & Co. . . .	$52 60		
W. W. Pratt	69 60		
Geo. F. Ricker	5 00		
Worcester Bros.	263 29		
		390 49	
Gas, Cambridge Gas Light Co.		864 17	
Hardware, tools and supplies:—			
Brock Bros.	9 38		
Burditt & Bynner . . .	82 79		
John Lane	1 00		
J. M. Price & Son . . .	14 40		
F. A. White	12 00		
Whittier Hardware Co. .	15 09		
		134 57	
Harness and repairs:—			
Chas. E. Berry	72 80		
M. Cavanagh	7 35		
Owen Doherty	122 30		
John Hancock	42 60		
G. A. Morse	12 25		
		257 30	
Hay, grain and straw:—			
J. S. Bradeen	1,148 32		
W. F. Holmes	9 80		
McPherson Bros. . . .	2,062 64		
H. H. Parsons	3 44		
Geo. G. Wright	30 96		
		3,255 16	
Horses, P. H. Dardis . . .		625 00	
Horse hire:—			
John Brassil	217 00		
T. A. Callahan	189 00		
Colby Bros.	218 00		
Wm. Condon	68 50		
Elizabeth Cox	52 50		
John Doody	181 00		
Elliott & Duvey	2 00		
Mrs. M. F. Lamb . . .	120 00		
Amounts carried forward .	$1,048 00	$57,816 21	$62,000 00

Amounts brought forward .	$1,048 00	$57,816 21	$62,000 00
Thos. McSorley	142 00		
John Quinn	111 50		
		1,301 50	
For horse shoeing: —			
Wm. Balmer	37 85		
Wm. Bell	93 00		
James Bolger	68 83		
T. Burke	55 64		
P. J. Callahan	64 50		
Edw. C. Donahue . . .	63 75		
W. F. Garrett & Co. . .	40 50		
John F. Gurry	79 62		
Thomas Smith	74 89		
		596 08	
Hose, Boston Woven Hose & Rubber Co. . . .	1,001 56		
Boston Belting Co. . . .	6 38		
		1,007 94	
Ice, Cambridge Ice Co. . .	27 27		
Fresh Pond Ice Co. . . .	19 94		
		47 21	
Medicine, A. R. Bayley & Co.		5 80	
Oat-cleaner, Peter A. Hayden		25 00	
Oil: —			
E. W. Bigelow & Co. . .	34 50		
Lustralis Mfg. Co. . . .	24 00		
Standard Oil Co.	7 49		
		65 99	
Packing, Gould Packing Co.		4 68	
Rope and copper waste, Edw. H. Haskell		91 37	
Salts, Henry Thayer & Co.		7 29	
Sawdust, George G. Page Box Co. , ...		3 00	
Shavings, C. W. H. Moulton & Co.		12 80	
Soap, Frank H. Teele . . .		9 25	
Stationery and Printing: —			
Cashman, Keating & Co. .	10 21		
Jas. H. Cox	8 75		
J. Frank Facey	10 00		
Amounts carried forward .	$28 96	$60,994 12	$62,000 00

Amounts brought forward .	$28 96	$60,994 12	$62,000 00
Harvard Printing Co. . .	19 99		
Stationery Department .	3 48		
John Wilson & Son . . .	67 27		
		119 70	
For supplies: —			
C. W. Carmen	8 30		
J. A. Holmes & Co. . .	9 00		
H. N. Hovey & Co. . . .	13 73		
M. R. Jouett & Co. . . .	13 92		
Geo. A. Wood	9 06		
Sundry persons	7 71		
		61 72	
Sundries		1 55	
Vitriol, soda, etc., Poor, Towne & Co.		124 93	
Washing, bedding, etc. .		320 38	
Whips, Darling's Whip Manufactory		4 87	
Total			61,627 27
Balance unexpended . .			$372 73

Health Department.

Appropriation			$7,000 00
Transferred from Incidental Expenses			25 37
			$7,025 37
Transferred to			
Public property, Sanitary arrangements		550 00	
Overseers of the Poor, Outside Aid Dept.		1,000 00	
			1,550 00
			$5,475 37

EXPENDED.

For Salaries of:—			
Medical Inspector, Dr. E. Farnham	$1,500 00		
Sanitary Inspectors:—			
Edw. F. Chase	852 63		
Wm. A. Ford	852 63		
Amounts carried forward .	$3,205 26		$5,475 37

Amounts brought forward .	$3,205 26		$5,475 37
For Temporary Inspector, Geo. U. Young	66 37		
Clerk, John McDuffie . .	149 25		
Secretary, Jas. B. Soper .	932 84		
Patrolman, W. H. H. Howe	131 42		
		$4,485 14	
Advertising:—			
James Cox	5 82		
F. S. Hill	24 50		
		30 32	
Analaysis of water, Dr. F. A. Dunbar		20 00	
Binding, J. H. H. McNamee		2 50	
Carpentry, W. H. Norris . .		8 40	
Carriage hire:—			
J. E. Fabyan	6 00		
M. J. Fairbanks	4 00		
		10 00	
Car tickets, W. E. Street Railway Co.		250 00	
Cash paid for burying dead animals		47 75	
Cow-pox points, H. A. Martin & Son		31 50	
Dictionary and stand, Home Library Association . . .		11 95	
Directories:—			
E. F. Hunt & Co. . . .	3 00		
Sampson, Murdock & Co. .	5 00		
		8 00	
Drugs, Walter G. Claflin . .		26 03	
Expenses to Chicago and return, Dr. Edwin Farnham		94 11	
Index case etc:—			
Library Bureau		38 75	
Map of Europe, J. L. Hammett		3 50	
Professional services, Dr. C. E. Hadcock		5 00	
Serving notices, sundry constables		29 67	
Stationery, printing and postage:—			
Cashman, Keating & Co.	12 08		
Cotton & Gould	154 99		
Amounts carried forward .	$167 07	$5,102 62	$5,475 37

Amounts brought forward .	$167 07	$5,102 62	$5,475 37
Jas. H. Cox	11 40		
W. H. Wheeler	99 50		
Winkley, Dresser & Co. .	6 53		
Sundry persons	6 00		
		290 50	
Sundries		1 40	
Supplement to Statutes, Little, Brown & Co.		2 85	
Use of horse, Whiting & Smith		68 00	
Whitewashing, Wm. J. Heron		10 00	
Total			$5,475 37

Incidental Expenses.

Appropriation			$20,000 00
Revenue appropriated . .			1,070 06
			21,070 06
Transferred to:—			
City Clerk's Dept. . . .		18 12	
Clerk of Committees' Dept.		26 06	
Election Expenses, City Clerk		2,500 00	
Health Dept.		25 37	
Overseers of the Poor, Almshouse Fire Protection .		2,500 00	
Park Commissioners . .		500 00	
Public Property		3,035 22	
Sealer of Weights and Measures		150 00	
Street Dept.		1,341 40	
			10,096 17
			$10 973 89

RECEIVED.

License Fees:—			
Hawkers and pedlers . . .	$200 00		
Liquor	49 00		
		249 00	
Premium on City Bonds .		501 00	
Rent of land		187 56	
Old taxes		132 50	
		$1,070 06	
Amount carried forward . .			$10,973 89

Amount brought forward . .			$10,973 89

EXPENDED.

For ambulance fees, Chas. W. Dailey		$153 25	
Ambulance repairs, Chapman Carriage Co.		62 50	
Automatic Fire Whistle:—			
Crosby Steam Gauge Co. .	$49 00		
Greene & Co.	149 84		
Geo. M. Stevens	250 00		
	———	448 84	
City Council expenses:—			
Advertising	4 00		
Carriage hire	95 50		
Car tickets	310 00		
Salaries:—			
Clerk of Common Council, Edward J. Brandon . .	300 00		
Page, Wm. A. Walker .	140 00		
Refreshments	47 00		
	———	896 50	
Damages awarded:—			
Arthur A. Lincoln . . .	100 00		
Thomas Conroy	22 00		
Margaret Berkeley . . .	200 00		
Ann Duffy	100 00		
Wm. J. Marvin	50 00		
Maria Keyes	200 00		
Mary Murphy	200 00		
	———	872 00	
Executions of Court:—			
Bertha M. Tenney . . .	300 00		
Pierre Bourget	2,269 30		
Jos. F. Foster, Gdn. . .	280 57		
Thomas F. Murphy . .	35 00		
John D. Penney . . .	250 00		
Sarah E. Bowker . . .	130 56		
Rebekah M. Pope . . .	130 56		
Wm. H. Allen	453 45		
Wm. H. White	321 30		
	———	4,170 74	
Amounts carried forward .		$6,603 83	$10,973 89

Amounts brought forward .		$6,603 83	$10,973 89
For Invalid tax titles:—			
Stephen P. Weld . . .	24 92		
A. V. Lynde	387 22		
		412 14	
Lights for band concerts, Cambridge Electric Lt. Co.		86 32	
Massachusetts Reports, Little, Brown & Co. . . .		6 00	
Memorial Day appropriation for G. A. R.		1,000 00	
Numbers, J. & J. Berry & Co.		15 00	
Park committee expenses:—			
Carriage hire	27 38		
Printing, Harvard Printing Co.	40 20		
Services of clerk, Edw. A. Counihan	75 00		
		142 58	
Report of hearing, Bacon & Burpee		24 75	
Rebate of Betterment Assessment: —			
Alex McElroy		18 50	
Refund of one fourth of Liquor Licenses to Com. of Mass.		21 50	
Ringing bells on holidays .		63 00	
Services of veterinary surgeons, etc.: —			
Wm. Ferguson	204 16		
Chas. E. Hadcock . . .	408 31		
		612 47	
Services as Inspector of Provisions and Animals intended for slaughter: —			
Wm. Ferguson		500 00	
Services of G. A. A. Pevey as legal counsel in criminal prosecutions		720 00	
Services of Dr. H. E. Knowlton during leave of absence of Assistant City Physician		60 00	
Amounts carried forward . .		$10,286 09	$10,973 89

Amounts brought forward .		$10 286 09	$10,973 89
For Somerville tax for 1891 with interest		311 90	
Stationery and printing: —			
Cashman, Keating & Co. .	55 06		
Harvard Printing Co. . .	4 50		
Stationery Dept.	6 52		
		66 08	
Subscription to Barry's List of Insolvents:—			
Alfred L. Barry		18 00	
Transportation of Military Companies for target practise		90 00	
Vane for new Engine House in Ward Four		75 00	
Total			10,847 07
Balance unexpended . .			$126 82

Inspection of Milk and Vinegar.

Appropriation			$1,300 00
RECEIVED.			
Fees for licenses	$145 00		
EXPENDED.			
For salaries:—			
Inspector, Dr. F. A. Dunbar	$815 25		
Deputy, John F. Wheeler .	268 81		
		1,084 06	
Apparatus, Franklin Ed. Co.		1 08	
Car tickets, W. E. St. Railway Co.		30 00	
Directory, E. F. Hunt & Co.		3 00	
Drugs, Walter G. Claflin . . .		2 40	
Expressage, Savage & Son .		1 80	
Posting notices, J. A. McLane		3 00	
Rep. Can, A. M. Robbins .		60	
Stationery, printing and postage: —			
Cashman, Keating & Co. .	6 20		
Harvard Printing Co. . .	8 50		
Amounts carried forward . .	$14 70	$1,125 94	$1,300 00

Amounts brought forward . .	$14 70	$1,125 94	$1,300 00
James H. Cox	10 75		
Stationery Department .	11 25		
		36 70	
Samples, John F. Wheeler		77 62	
Seals, The R. Woodman Co.		6 00	
Use of horse and buggy, G. Davoren		52 50	
Total			1,298 76
Balance unexpended . .			$1 24

Inspection and Supervision of Electric Wires Department.

Appropriation	$8,500 00
Revenue appropriated	1,513 74
	$10,013 74

RECEIVED.

For labor and supplies	$1,813 74	

EXPENDED.

For salaries :—		
Inspector, Chas. H. Morse .	$1,000 00	
Assistants, Geo. J. Blaisdell .	1,154 92	
A. W. Daniels . .	352 39	
D. J. Campbell . .	617 57	
Wm. C. Pierce . .	985 17	
Oscar L. Whitney .	751 07	
Temporary assistants . . .	870 03	
		$5,731 15
Apparatus and supplies:—		
Barbour, Stockwell & Co. .	8 21	
Boston Electric Co.	2 50	
Boston Woven Hose & Rubber Co.	25 47	
Boston Insulator Co. . . .	15 00	
Burditt & Bynner	110 48	
Brock Bros.	5 81	
Chapman Co.	18 00	
Gamewell Co.	4 00	
Gillis & Gleason	63 43	
Goodnow & Wightman . .	11 92	
F. H. Holton & Co.	87 25	
H. W. Holbrook & Co. . . .	10 00	
Amounts brought forward . .	$362 07	$5,731 15 $10,013 74

Amounts brought forward . .	$362 07	$5,731 15	$10,013 74
Holtzer-Cabot Electric Co. .	96 13		
Municipal Fire & Police Telegraph Co.	446 15		
Pettingill, Andrews Co. . .	691 78		
Poor, Towne & Co.	484 25		
James W. Queen & Co. . .	133 00		
G. M. Stevens	7 70		
Simplex Electric Co. . . .	57 70		
J. E. Steffens	8 00		
W. H. Spiller, Jr.	33 61		
Sundry persons	10 23		
Weeks & Potter Co. . . .	44 37		
Western Electric Co. . . .	73 00		
F. A. White	10 20		
Wright Electric Eng. Co. . .	7 50		
		2,465 69	
Bedding, Worcester Bros. . .		16 50	
Board and care of horse . . .		426 00	
Carpentry:—			
H. A. Scranton	14 40		
Ira G. Hersey	21 28		
W. H. Norris	79 71		
		115 39	
Car tickets, West End Street Railway Co.		15 00	
Changing bell, Ryder & Connelly		110 00	
Expressage		36 80	
Harness repairs		29 75	
Heater, Cambridge Gas Light Company . .		8 10	
Horse-shoeing, William Balmer		59 69	
Lights, Cambridge Electric Light Company .		34 53	
Stationery		8 90	
Telephone rent, N. E. Telephone Co. . . .		369 50	
Use of sleigh, Sawin's Express		7 00	
Wagon repairs, George O. Rollins		76 94	
Washing bedding, Fannie E. Blaisdell . .		34 13	
Total			9,545 07
Balance unexpended			$468 67

Interest.

Appropriation			$138,000 00
RECEIVED.			
For interest on :—			
County tax (discounted at 6 per cent.)	$317 85		
Deposits	2,672 07		
Sewer assessments	10 83		
Taxes	3,538 12		
Accrued interest on bonds	116 66		
	$6,655 53		
EXPENDED.			
For interest on:—			
Cemetery Fund		$1,056 55	
Contingent Loan		8,000 00	
Daniel White Charity		300 00	
Dowse Institute Fund		600 00	
Funded Loan		114,730 00	
Sanders Temperance Fund		600 00	
Tax title deeds		31 05	
Temporary loans		11,560 32	
Total			136,877 92
Balance unexpended			$1,122 08

Lamp Department.

Appropriation			$67,000 00
EXPENDED.			
For salaries :—			
Supt. Chas. H. Morse	$1,000 00		
Lamplighters, as per pay rolls	3,650 00		
		$4,650 00	
Book, Robt. Clarke & Co.		15 00	
Board of horse, Whiting & Smith		175 00	
Carriage hire for committee :—			
Chas. W. Dailey	17 00		
James McGovern	12 00		
John Nixon	30 00		
H. K. Parsons	7 00		
		66 00	
Amounts carried forward		$4,906 00	$67,000 00

Amounts brought forward . .		$4,906 00	$67,000 00
For car tickets, W. E. St. R'way Co.		25 00	
Expressage		1 00	
Directory, E. F. Hunt & Co.		3 00	
Glass, Burditt & Bynner . . .		40 75	
Hardware and tools:—			
Burditt & Bynner	$4 54		
Greene & Co.	2 71		
A. M. Robbins	1 70		
F. A. White	9 60		
		18 55	
Harness, etc., Whiting & Smith		5 30	
Labor, Department of Inspection of Wires		98 75	
Lamp chimneys, wicks and burners:—			
Jones, McDuffie & Stratton .		40 70	
Lighting streets:—			
Camb. Elec. Light Co., arc .	50,500 66		
Incandescent	4,011 62		
Repairs	12 30		
Camb. Gas Light Co. . . .	6,506 54		
Repairs	94 72		
Maintenance of lights on Grove street, town of Belmont	36 00		
		61,161 84	
Lunches for committee, M. R. Jones		8 00	
Matches		5 31	
Oil:—			
Standard Oil Co.	116 87		
F. A. White	1 50		
		118 37	
Repairing wagons:—			
A. J. Jones	3 00		
Chas. Waugh & Co.	46 90		
		49 90	
Stationery and printing:—			
Cashman, Keating & Co. . .	6 58		
Cotton & Gould	7 25		
Harvard Printing Co. . . .	14 25		
Stationery Dept.	4 88		
		32 96	
Typewriter and supplies:—			
Hammond Typewriter Co. .		100 50	
Total			66,615 93
Balance unexpended . . .			$384 07

Law Department.

Appropriation			$3,500 00

RECEIVED.

For services of city solicitor in water cases:—			
Cambridge Water Works . .	$1,500 00		

EXPENDED.

For salaries of solicitors:—			
Chas. J. McIntire	2,388 87		
G. A. A. Pevey	111 13		
		$2,500 00	
Car tickets, W. E. St. Railway Co.		10 00	
Directory, E. F. Hunt & Co. .		3 00	
Election cases, J. H. H. McNamee		1 10	
Examination of titles, Wm. V. Thompson		115 00	
Expert testimony, Chas. H. Saunders		20 00	
Fees, clerk of courts, Middlesex County		40 50	
Legal assistance, Freeman Hunt, Esq.		60 00	
Services of:—			
J. R. Fairbairn	10 40		
F. E. Shaw	25 20		
		35 60	
Stationery, printing and postage		97 65	
Stenography, James D. Taylor .		5 00	
Sundry expenses, Chas. J. McIntire		30 35	
Typewriting, George B. French		287 99	
Total			3,206 19
Balance unexpended . .			$293 81

Overseers of the Poor (Almshouse Dept).

Appropriation			$22,000 00

RECEIVED.

For barrels		$37 33	
Board of inmates		656 90	
Burials of paupers		11 15	
Flour		4 90	
Grease and bones		98 90	
Old materials		67 92	
Proceeds of chair shop . . .		319 61	
Recaning chairs		6 25	
Weighing fees		1 04	
From Commonwealth of Mass.:—			
Burials	$11 15		
Sick Poor	24 50		
		35 65	
			$1,239 65

EXPENDED.

For salaries:—			
Supt., M. L. Eldridge. . . .		$1,500 00	
Asst. Supt., M. A. Warren . .		782 14	
Chaplain, F. W. Holland . .		100 00	
School teacher, Alice H. Fawcett		323 63	
Organist and music teacher, M. G. Hillman		150 00	
Sundry house officials		3,847 52	
			6,703 29
Advertising, Boston Herald Co.			15 75
Barge hire, W. E. Street Railway Co.			10 00
Board and care, Carney Hospital			24 57
Bricks, Parry Bros. & Co. . .			34 00
Brushes, Greenwood & Co. . .			27 25
Burials of paupers, H. D. Litchfield			28 60
Burial fees, Cemetery Dept. .			30 00
Cane for chair shop, Wakefield Rattan Co.			119 00
Carriage hire, H. K. Parsons & Co.			4 00
Amounts carried forward . .			$6,996 46 $22,000 00

Amounts brought forward . .		$6,996 46	$22,000 00
For car tickets, W. E. Street Railway Co.		60 00	
Cash expended for sundries:—			
M. L. Eldridge		244 58	
Clothing, dry goods and boots and shoes:—			
Brown, Durrell & Co. . . .	$389 91		
J. H. Corcoran & Co. . . .	27 14		
Dyer, Rice & Co.	20 88		
F. E. Eldridge	4 85		
D. W. Hyde & Co.	18 78		
Jordan, Marsh & Co. . . .	538 14		
Mass. Boot & Shoe Co. . .	63 78		
P. H. Moriarty	19 35		
L. Morse & Co.	204 87		
Wm. Myers	40 25		
Geo. W. Simmons & Co. . .	85 75		
H. Sleap & Co.	65 35		
		1,479 05	
Cordage and blocks, M. F. Whiton & Co.		8 05	
Dentistry, Dr. A. J. Sawyer .		30 00	
Directory, W. A. Greenough & Co.		3 00	
Disinfectants, Ellingwood & Co.	13 50		
Hubbard & Co.	5 25		
		18 75	
Expressage, Bancroft's Express		21 80	
Fancy goods and toys:—			
B. H. Landman	14 70		
Horace Partridge & Co. . .	13 90		
		28 60	
Fuel:—			
Baker, Hunnewell & Co. . .	299 00		
L. G. Burnham & Co. . . .	269 00		
Coleman Bros.	279 76		
J. A. Heaton	269 00		
H. G. Jordan & Co.	12 00		
H. Wellington & Co. . . .	269 00		
		1,397 76	
Weighing coal, H. W. Brooks		12 65	
Furniture and furnishings:—			
Chas. W. Allen	47 52		
D. W. Gage	26 63		
Milton Gage	37 63		
Amounts carried forward . . .	$111 78	$10,300 70	$22,000 00

Amounts brought forward . .	$111 78	$10,300 70	$22,000 00
D. W. Hyde & Co.	5 62		
Geo. R. McFarlin	37 31		
John H. Pray, Sons & Co. .	160 75		
Prescott Bros.	12 00		
J. B. Taylor	48 00		
Worcester Bros.	21 00		
		396 46	
For gas, Cambridge Gas Light Co.		253 61	
Glass, Boston Plate and Window Glass Co.		6 42	
Hardware, tools and supplies:—			
Boyd, Leeds & Co.	2 88		
Jos. Breck & Sons	9 60		
Burditt & Bynner	212 46		
Dodge, Haley & Co.	1 75		
Walworth Mfg. Co.	55 78		
Walker & Pratt Mfg. Co. . .	134 09		
F. A. White	43 24		
		459 80	
Hay and grain, Clark Bros. . .		428 91	
Hose and rubber goods, etc., C. S. Knowles	37 54		
Boston Woven Hose and Rubber Co.	22 00		
		59 54	
House repairs:—			
Carpentry, A. L. Teele . . .	289 24		
Iron and boiler work:—			
Charles River Iron Works . .	219 85		
Mason work and whitewashing:			
James Quinn & Son	7 47		
A. F. Stackelborg	287 06		
Painting and glazing:—			
Frank Hastings	36 00		
J. J. Shedd	93 24		
J. H. and J. P. Thayer & Co.	7 43		
Plumbing:—			
D. W. Gage	9 20		
John H. Stevens & Co. . . .	81 17		
Roof repairs, John J. Blevins .	28 48		
Whitening, C. G. Reed . . .	20 74		
		1,079 88	
Labor on Almshouse drain, Sewer Dept.		48 00	
Amounts carried forward . . .		$13,033 32	$22,000 00

Amounts brought forward . .		$13,033 32	$22,000 00
For lumber, lime and cement:—			
John S. Clary	$17 77		
Geo. W. Gale Lumber Co. .	4 20		
J. Sewell & Co.	70 59		
Sewell, Adams & Co. . . .	235 83		
Wm. H. Wood & Co. . . .	30 30		
		358 69	
Medical instruments:—			
Otis Clapp & Son	4 00		
Fisk & Arnold	2 50		
W. H. Phelps & Co.	17 00		
		23 50	
Medicines, drugs and chemicals:			
Eagle Chemical Co.	12 80		
Gilman Bros.	348 69		
Sundry Persons	5 52		
		367 01	
Newspapers, James W. Hunnewell		24 00	
Oil, W. A. Wood & Co. . . .		12 25	
Pipe and fittings:—			
D. W. Lewis	17 99		
Walworth Mfg. Co. . . .	3 00		
		20 99	
Plans and sketches, J. H. Webber		50 00	
Professional services, Dr. H. E. Knowlton		6 00	
Repairing boots, Wm. Meyer .		30 75	
School supplies, school department		12 21	
Soap:—			
Alden Speare's Sons & Co. .	5 46		
Frank H. Teele	205 00		
		210 46	
Stationery and printing:—			
F. W. Barry, Beale & Co. . .		20 37	
Subsistence supplies:—			
Boyd, Leeds & Co.	348 38		
Cambridge Baking Company .	48 03		
Cheney, Upham & Co. . . .	81 80		
George H. Chessman & Co. .	16 20		
George Close	14 32		
Cobb, Bates & Yerxa . . .	171 52		
John Cummings	15 20		
Amounts carried forward . . .	$695 45	$14,169 55	$22,000 00

Amounts carried forward . .	$695 45	$14,169 55	$22,000 00
Charles L. Davenport . . .	19 50		
David Ellis & Co.	792 40		
E. E. Harrington	14 60		
J. J. Hill	613 29		
F. M. Holmes	26 40		
M. R. Jones	9 10		
A. J. Littlefield	220 36		
A. J. Lovell	92 65		
McPherson Bros.	475 17		
Walter Nash	1,986 18		
New York Biscuit Company .	90 31		
F. D. Norton	408 98		
George G. Parker	30 52		
F. Putnam & Co.	229 50		
George E. Richardson & Co. .	25 20		
W. Sanderson	9 60		
Sands, Page & Taylor . . .	252 00		
S. S. Sleeper & Co.	336 63		
Swan, Newton & Co. . . .	5 17		
L. A. Treat	145 08		
Utley & Boynton	18 85		
Utley & Rogers	74 48		
S. P. Worthley	789 10		
		7,360 52	
Sundries		2 60	
Telephone rent and tolls, N. E. Telephone Co.		52 80	
Wagon and carriage repairs:—			
George R. Henderson . . .	$19 50		
James A. Henderson & Son .	3 00		
		22 50	
Watchman's clock, Inspection of Wires Department . . .		157 00	
Wire, Morss & Whyte		10 00	
Total			$21,774 97
Balance unexpended . . .			$225 03

Overseers of the Poor (Farm and Ledge).

Appropriation			$8,000 00

RECEIVED.

For farm produce	$6,400 64	
Stone	5,826 74	
		$12,227 38

Farm Department.

EXPENDED.

For labor on farm:—			
Farmer, James Welch	786 43		
Employees, as per pay-rolls . .	1,966 16		
		2,752 59	
Bean poles, Coleman Bros. . .		6 00	
Cows:—			
Edson Kimball	110 00		
Jeremiah Sullivan	110 00		
		220 00	
Hay, J. E. Wellington		64 25	
Hemp, M. F. Whiton		5 20	
Horse-shoeing, J. B. Rufer . .		14 75	
Lumber, John S. Clary . . .		81 13	
Manure:—			
C. Anderson	6 00		
David Barry	9 84		
T. A. Callaghan	6 98		
Timothy Cosgrove	13 52		
T. F. Crimmins	28 07		
John Cronin	6 00		
Jas. M. Culhane	4 17		
D. W. Davis	11 49		
E. Frederickson	25 11		
S. Guitison	2 72		
Frank Green	7 27		
Wm. Hart	123 05		
J. Hennessey	7 03		
J. McCrehan	41 50		
C. Mulcahy	38 23		
Michael Murphy	38 25		
Timothy Murphy	6 28		
Amounts carried forward . . .	$375 51	$3,143 92	$8,000 00

Amounts brought forward . .	$375 51	$3,143 92	$8,000 00
M. O'Neil	14 60		
John Quinn	53 63		
John M. Riley	83 55		
		527 29	
Market expenses, M. L. Eldridge		25 20	
Mowing, Ludwig Reiger . . .		52 50	
Paper, Wm. H. Claflin & Co. .		4 24	
Pigs: —			
John Daily	40 00		
Joseph Evans	50 00		
J. D. Lynch	25 00		
John P. Taylor	60 00		
		175 00	
Plants and seeds:—			
Jos. Breck & Sons	80		
Schlegel & Fottler	139 60		
		140 40	
Potatoes, F. Putman & Co. . .		6 30	
Sleigh, Irving Blake		30 00	
Tools, Jos. Breck & Sons . .		7 15	
		4,112 00	

Ledge Department.

Labor on ledge:—			
Foreman, Michael Callahan .	$781 43		
Employees, as per pay-roll .	2,343 42		
		3,124 85	
Carpentry, A. L. Teele . . .		49 50	
Powder, Geo. H. Sampson . .		257 16	
Repairing tools:—			
Edward Fitzgerald	62 30		
Mrs. Edward Fitzgerald . .	43 80		
		106 10	
Stationery, F. W. Barry, Beale & Co.		4 00	
Tools and hardware, Dodge, Haley & Co.		11 67	
		3,553 28	
Total expenditures on:—			
Farm		4,112 00	
Ledge		3,553 28	
Total			7,665 28
Balance unexpended . .			$334 72

Overseers of the Poor (House Offal).

Appropriation			$23,000 00
Transferred from Sewers Construction			747 23
			$23,747 23

RECEIVED.

For sale of house offal		$7,033 52	

EXPENDED.

For labor, as per pay rolls . . .		$18,703 50	
Bricks, Boston Con. Brick Co.		6 30	
Drain work, A. F. Stackelborg		59 43	
Harness and repairs:—			
L. Barrieau	$99 90		
Sartwell, Hunhold & Humphrey	11 25		
Ryan & Wilson	2 00		
		113 15	
Hay and grain:—			
O. S. Brown & Co.	230 00		
Clark Bros.	746 86		
A. Fitch & Co.	206 35		
McPherson Bros.	522 88		
H. H. Turner & Co. . . .	618 04		
Geo. G. Wright	748 50		
		3,072 63	
Horses:—			
Wm. Hart	150 00		
Geo. M. Parker	175 00		
		325 00	
Horse-shoeing:—			
Wm. Bell	389 65		
A. W. Ganong	19 01		
		408 66	
Horse brushes, Greenwood & Co.		24 00	
Lumber:—			
J. Sewell & Co.	20 81		
Sewell, Adams & Co. . . .	44 70		
		65 51	
Offal wagons:—			
James Miller	150 00		
A. W. Ganong	150 00		
		300 00	
Amounts carried forward . . .		$23,078 18	$23,747 23

Amounts brought forward . .		$23,078 18	$23,747 23
For paint, Burditt & Bynner . .		17 70	
Pipe, D. W. Lewis		14 40	
Prof. attendance on injured man			
Dr. J. E. Somers		40 00	
Rubber goods, C. S. Knowles .		9 20	
Tools: —			
Dodge, Haley & Co.	19 00		
Joseph Breck & Sons . . .	1 60		
		20 60	
Wagon repairs:—			
Brosnahan & Ostridge . . .	62 55		
R. S. Easter & Son	377 35		
A. W. Ganong	25 00		
James Miller	63 25		
Rhines & Breslin	39 00		
		567 15	
Total			$23,747 23

Overseers of the Poor (Outside Aid).

Appropriation			$34,500 00
Transferred from Bridge Dept. .			1,000 00
Health Dept.			1,000 00
Sewers Construction			4,220 95
			$40,720 95

RECEIVED.

For aid to, board and burial of paupers:—			
By cities, towns and individuals	$2,929 70		
Commonwealth of Mass. . . .	1,435 12		
		$4,364 82	
Ambulance transportation . .		2 00	
Error in voucher		10 00	
Plumbing		4 51	
		4,381 33	

EXPENDED.

For salaries :—			
Secretary, D. P. Muzzey . . .	$1,500 00		
Visitor, V. Danforth	1,500 00		
Clerk, Addie M. Benson . . .	521 67		
		3,521 67	
Advertising, Boston Herald Co.		6 00	
Ambulance fees, C. W. Dailey .		92 50	
Aid to sundry persons		1,477 00	
Amounts carried forward . . .		$5,097 17	$40,720 95

Amount brought forward . . .		$5,097 17	$40,720 95
By cities and towns:—			
City of Boston	$917 22		
Chelsea	1 25		
Everett	12 00		
Haverhill	12 30		
Lynn	285 85		
Malden	396 19		
Medford	66 18		
Newburyport	3 00		
Somerville	97 95		
Springfield	11 95		
Town of Arlington . . .	21 51		
Ashland	31 00		
Brookline	144 35		
Cottage City	163 88		
Hudson	25 00		
Methuen	139 09		
		2,328 72	
Board and care of sundry persons		5,341 34	
At Boston Children's Aid Society	460 71		
Children's Hospital . .	116 00		
Cambridge Hospital . .	351 14		
Carney Hospital . . .	222 30		
Essex Co. Truant School	5 36		
Danvers Lunatic Hospital	1,864 05		
House of Correction . .	98 72		
Hospital cottages for children	167 15		
Mass. School for the Feeble Minded	2,047 40		
Mass. Hospital for Dipsomaniacs and Inebriates	311 07		
Mass. Gen. Hospital . .	18 00		
Northampton Lunatic Hospital	57 39		
Taunton Lunatic Hospital	169 46		
Westboro Insane Hospital	1,759 35		
Worcester Lunatic Hospital	6,161 78		
Worcester Insane Asylum	2,933 36		
Amounts carried forward .	$16,743 24	$12,767 23	$40,720 95

Amounts brought forward .	$16,743 24	$12,767 23	$40,720 95
By Commonwealth of Massachusetts :—			
At Danvers Lunatic Hospital	$205 93		
Mass. Hospital for Dipsomaniacs	103 06		
School for Feeble Minded	189 42		
State Almshouse . . .	42 85		
State Farm (insane) . .	802 80		
State Almshouse (insane)	1,680 80		
Westboro Insane Hospital	248 85		
Worcester Lunatic Hospital	1,109 39		
		21,126 34	
For Burial Fees :—			
Town of Westboro . . .	5 00		
Cambridge Cemetery . .	199 00		
		204 00	
Burials, H. D. Litchfield . .		162 95	
Binding, J. H. H. McNamee.		96 05	
Car Tickets, West End Street Railway Co.		200 00	
Carpentry:—			
T. H. Luther	11 60		
W. H. Norris	186 50		
		198 10	
Cash expended :—			
V. Danforth	90 89		
D. P. Muzzey	37 50		
Chas. Walker	8 58		
		136 97	
Cleaning carpets, W. A. Freeman		4 64	
Clothing, boots and shoes :—			
R. Best & Son	483 05		
J. H. Corcoran & Co. . .	4 48		
Jordan, Marsh & Co. . .	154 25		
P. H. Moriarty	4 50		
L. Morse & Co.	13 00		
H. Sleap & Co.	27 85		
		687 13	
Clock repairs, Miller Bros. .		2 50	
Amounts carried forward .		$35,585 91	$40,720 95

Amounts brought forward .		$35,585 91	$40,720 95
For Directories:—			
W. A. Greenough & Co. .	$8 00		
Sampson, Murdock & Co. .	5 00		
	——	13 00	
Dentistry, A. J. Sawyer . .		2 00	
Expressage, J. R. & C. S. Hersum		2 00	
Furniture and repairs, Phillips Bros. & Co.		31 50	
Fuel, weighing coal:—			
H. W. Brooks	12 75		
Baker, Hunnewell & Co. .	358 38		
L. G. Burnham & Co. . .	274 38		
Coleman Bros.	274 38		
J. A. Heaton	274 38		
H. G. Jordan & Co. . . .	222 00		
H. Wellington & Co. . .	418 38		
	———	1,834 65	
Gas, Camb. Gas Light Co. .		139 28	
Ice, Fresh Pond Ice Co. . .		7 00	
Medicine, drugs, etc.:—			
A. R. Bayley & Co. . . .	22 90		
Otis Clapp & Son . . .	7 60		
C. E. Coombs	27 17		
S. W. Farwell	2 03		
Gilman Bros.	222 77		
G. F. Harvey Co. . . .	23 00		
G. C. Olive	19 98		
Reeves Bros.	8 06		
L. W. Reycroft	45 54		
W. C. Smith	11 05		
S. H. Talbot	4 00		
Frank H. Willard . . .	4 70		
	———	398 80	
Medical instruments:—			
Codman & Shurtleff . . .	14 00		
Otis Clapp & Son . . .	75		
Peake & Buzzell	1 70		
W. C. Smith	7 50		
	———	23 95	
Plumbing, Levi Hawkes & Co.		4 51	
Painting, Geo. H. Hughes .		7 50	
Amounts carried forward .		$38,050 10	$40,720 95

Amounts brought forward . .		$38,050 10	$40,720 95
For Nurses:—			
Margaret Arnold	$10 00		
Mrs. Mary M. Keating . .	15 00		
Miss Izette V. Smith . .	15 43		
		40 43	
Professional services:—			
Dr. H. C. Knowlton . .	14 00		
Dr. R. Wetherbee . . .	6 00		
		20 00	
Setting Voting Lists, E. W. Bettinson		6 00	
Repairing safe door, Chelmsford Foundry Co. . . .		1 25	
Sign painting, C. Hunting .		7 38	
Stationery and printing:—			
George T. Brown . . .	$4 50		
F. W. Barry, Beale & Co. .	136 40		
Cotton & Gould	4 50		
Cashman, Keating & Co. .	58 95		
John Ford & Son. . . .	40 00		
J. Frank Facey	2 50		
John H. Ford	16 00		
Harvard Printing Company	74 75		
George H. Richter & Co. .	2 25		
		339 85	
Subsistence supplies:—			
D. H. Dean	$199 50		
W. H. Dodge	64 25		
H. N. Hovey & Co. . . .	387 66		
J. A. Holmes & Co. . . .	695 56		
McPherson Bros. . . .	727 17		
		2,074 14	
Supplies:—			
Burditt & Bynner . . .	2 65		
William H. Claflin & Co. .	21 09		
George F. Dickson . . .	7 50		
Moore & Ricker	11 30		
F. A. White	2 40		
L. W. Poole	5 00		
		49 94	
Telephone rent and tolls, N. E. Telephone Company . .		101 01	
Vaccine Virus, L. L. Bryant		3 10	
Wagon repairs, James A. Henderson & Son		27 75	
Total			$40,720 95

Overseers of the Poor (Almshouse Fire Protection).

Appropriation		$2,500 00
EXPENDED.		
For Advertising, James Cox . .	$1 51	
Carpentry, J. H. Keenan . .	46 41	
Contract, J. H. Keenan . .	1,125 00	
Hose and stand pipe, Boston Woven Hose Co.	653 50	
Plans, Wilfred A. Norris . .	45 00	
Plumbing, J. H. Keenan . .	50 00	
Water supply, Camb. Water Works	240 32	
Total		$2,161 74
Balance unexpended . .		$338 26

Ovesseers of the Poor (Salary of Assistant City Physician.)

Appropriation		$1,500 00
EXPENDED.		
For salary of Asst. City Physician Dr. L. L. Bryant		$1,500 00

Park Commissioners—Incidentals.

Appropriation, transferred from Incidental Expenses . . .			$500 00
EXPENDED.			
For Carriage hire:—			
Lake & Moynahan	$24 00		
H. K. Parsons & Co. . . .	18 00		
		$42 00	
Keys, C. L. Bradlee . . .		1 15	
Office furniture, Phillips Bros. & Co.		51 50	
Professional service of Olmstead, Olmstead & Eliot		200 00	
Stationery, printing and postage		44 48	
Total			339 13
Balance unexpended . .			$160 87

Police Department.

Appropriation			$107,000 00
Surplus revenue			890 41
			$107,890 41

RECEIVED.

For cloth		$603 68	
Expenses preserving order on cars		48 00	
Fines		5,238 73	
		5,890 41	

EXPENDED.

For salaries:—			
Chief, L. J. Cloyes . . .	$1,800 00		
Captain, M. J. Folsom . .	1,248 00		
T. H. Lucy	1,248 00		
J. F. Murray	1,248 00		
Inspector, L. J. Ducey . .	231 94		
A. S. Harriman	224 25		
Court officer, W. F. Batchelder	1,186 25		
Sergeants	8,222 50		
Patrolmen	81,222 82		
Matrons	730 00		
Drivers	3,143 96		
		100,505 72	
Badges and repairs, A. W. Mitchell Mfg. Co. . . .		3 80	
Billies, Wm. F. Chester . .		10 00	
Buttons, D. Evans & Co. .		75 00	
Carpentry, W. H. Norris .		9 05	
Carriage and wagon hire:—			
C. W. Dailey	63 00		
Samuel Giddings . . .	2 00		
		65 00	
Car tickets, W. E. Street Railway Co.		220 00	
Cash expended for sundries:—			
W. F. Batchelder . . .	85		
L. J. Cloyes	54 79		
L. J. Ducey	19 75		
Amounts carried forward . .	$75 39	$100,888 57	$107,890 41

Amounts brought forward .	$75 39	$100,888 57	$107,890 41
M. J. Folsom	12 40		
T. H. Lucy	43 25		
Jas. E. Murray	20 75		
J. F. Murray	26 35		
		178 14	
For cleaning carpets, W. A. Freeman		12 20	
Cleaning stations:—			
Anna Freeman	120 00		
Ann Murphy	119 00		
		239 00	
Clocks and repairs		5 00	
Cloth for uniforms, Wendell, Fay & Co.		569 19	
Crackers, Wm. Wright . . .		4 50	
Cutting cloth		2 00	
Devices, S. O. Aborn . . .		1 00	
Directories:—			
W. A. Greenough & Co. .	8 00		
E. L. Hunt & Co.	18 00		
Sampson, Murdock & Co. .	5 00		
		31 00	
Disinfectant, J. F. Fuller & Co.		13 50	
Expert evidence, Melvin A. Priest		50 00	
Expressage:—			
Chas. J. Donovan	2 00		
Hatch & Co.	2 25		
Savage & Son	2 95		
		7 20	
Fire arms and repairs, Wm. Read & Sons		10 45	
Fuel, Wellington & Buck . .		47 55	
Furniture, Phillips Bros. & Co.		17 50	
Gas fittings, G. F. Dickson .		6 47	
Hardware and supplies:—			
Brock Bros.	21 38		
Burditt & Bynner	24 58		
J. M. Price & Son	18 33		
		64 29	
Harness, wagons and repairs:			
L. C. Chase & Co. . . .	6 50		
Owen Doherty	13 75		
Amounts carried forward .	$20 25	$102,147 56	$107,890 41

Amounts brought forward .	$20 25	$102,147 56	$107,890 41
Jas. Forgie & Son	13 25		
Chas. Waugh & Co. . . .	664 77		
Sundry persons	75		
		699 02	
Hay and grain:—			
J. S. Bradeen	124 45		
A. G. Dore & Co.	161 38		
A. W. Goodnow	16 11		
		301 94	
Horse board:—			
C. W. Dailey	182 00		
Whiting & Smith	301 00		
		483 00	
Horse clipping, John Smith .		12 00	
Horse hire, Edw. E. Gould .		15 00	
Horse shoeing:—			
Wm. Balmer	38 74		
T. Burke	31 50		
Thomas Smith	32 75		
		102 99	
Ice, Fresh Pond Ice Co. . .		28 29	
Lighting:—			
Cambridge Elec. Light Co.	94 43		
Lamp	90		
Cambridge Gas Light Co. .	1,119 39		
		1,214 72	
Map, Geo. H. Walker & Co. .		7 00	
Medicines and medical supplies:—			
A. R. Bayley & Co. . .	4 05		
W. A. Claflin	50		
L. W. Reycroft . . .	1 85		
W. C. Smith	10 20		
		16 60	
Painting, Clarence V. Hadley		2 25	
Potographs, Geo. D. Ford .		6 00	
Police Signal supplies:—			
Inspector of Wires Dept.	422 00		
N. E. Gamewell Co. . .	98 65		
Municipal Signal Co. . .	3 50		
		524 15	
Prison cups and pans, Dover Stamping Co.		24 72	
Amounts carried forward . . .		$105,585 24	$107,890 41

Amounts brought forward .		$105,585 24	$107,890 41
For professional attendance:—			
Dr. A. L. Norris	3 00		
Dr. R. Wetherbee . . .	3 00		
		6 00	
Regalia, Mrs. J. E. Marshall		19 25	
Rent, E. W. Reed estate . .		266 64	
Screens, W. W. Pratt . . .		23 25	
Soap, Frank H. Teele . . .		3 75	
Stamps, L. W. Poole . . .		3 50	
Stationery and printing:—			
Cotton & Gould	194 21		
Harvard Printing Co. . .	86 00		
Stationery Dept.	61 14		
Winkley Dresser & Co. .	65 74		
Sundry persons	2 25		
		409 34	
Strapping clubs, H. A. Winship		3 60	
Sundries:—			
D. W. Hyde & Co. . . .	9 18		
James C. Moor	13 59		
Sundry persons	7 65		
		30 42	
Telephone rent and tolls, N. E. Telephone Co. . . .		1,200 42	
Type-writer, W. M. Belcher & Co.		140 00	
Wagon and carriage repairs:—			
A. J. Jones	9 97		
Chas. Waugh & Co. . . .	27 65		
		37 62	
Washing, ...		2 92	
Whips and repairs, Darling's Whip M'fg.		4 85	
Total			107,736 80
Balance unexpended .			$153 61

Police Signal System (District One.)

Appropriation	$3,850 00

EXPENDED.

For signal system, Municipal Signal Co.	$3,845 00
Balance unexpended . . .	$5 00

Public Library Department.

Appropriation	$14,000 00
Surplus revenue	640 48
	$14,640 48

RECEIVED.

For catalogues and fines	$411 61
Dog licenses for 1892	4,228 87
	$4,640 48

EXPENDED.

For salaries of :—			
Librarian, Miss A. L. Hayward	$1,183 33		
Assistants	3,318 47		
Janitors :—			
A. J. Ayers	1,085 33		
F. M. Buffum	20 00		
		$5,607 13	
Baskets, Hopkinson & Marden		15 00	
Binding books :—			
E. W. Bettinson	829 80		
National Binder Co.	10 25		
		840 05	
Books and periodicals :—			
Amee Bros.	370 37		
D. Appleton & Co.	50 38		
Balch Bros.	13 00		
Boston Book Co.	92 50		
Burnham Book Store	17 00		
J. W. Cadby	14 63		
N. R. Campbell & Co.	263 85		
Cassell Publishing Co.	14 00		
W. B. Clarke & Co.	1,321 57		
W. P. Elkins	4 25		
Essex Institute	6 00		
Estes & Lauriat	10 48		
D. G. Francis	14 85		
John M. Glenn, treas.	1 50		
E. H. Hames & Co.	1 00		
F. P. Harper	11 25		
Amounts carried forward	$2,206 63	$6,462 18	$14,640 48

Amounts brought forward .	$2,206 63	$6,462 18	$14,640 48
F. B. Heitman	5 00		
Houghton, Mifflin & Co. .	25 00		
D. H. Hurd & Co. . . .	15 00		
Geo. A. Kimball	1 50		
Keppler & Schwarzmann .	10 00		
Little, Brown & Co. . . .	1,883 77		
Geo. E. Littlefield . . .	70 80		
W. C. Lane, Treas. . . .	5 00		
W. H. Lowdermilk & Co. .	10 00		
L. A. Morrison	2 25		
J. B. Millet Co.	15 00		
G. P. Putnam's Sons . .	15 00		
J. A. Penman	30 00		
Geo. H. Rigby	5 50		
C. Schoenhof	252 00		
P. Thacher	126 95		
Adolph Vogl	18 00		
Woman's Tem. Pub. Asso.	1 25		
		4,698 65	
Carpentry:—			
O. H. Springer	7 41		
J. Q. A. Cate	5 40		
John Quin . . . . , . .	7 09		
		19 90	
Cash expended, A. L. Hayward		75 29	
Copper roofing, E. B. Badger & Son		300 00	
Directory, W. A. Greenough & Co.		3 00	
Delivery of Books & Agencies:—			
W. B. Cade	408 45		
M. I. Dow	35 00		
E. C. Gove	35 00		
H. M. Grant	35 00		
J. W. Hunnewell . . .	50 00		
Edw. Thorndike	60 00		
		623 45	
Expressage:—			
Elliott & Duvey	17 50		
Sawin's express	35 50		
		53 00	
Amounts carried forward .		$12,235 47	$14,640 48

Amounts brought forward .		$12,235 47	$14,640 48
For electric fixtures, E. Bryant & Co.		65 11	
Files and cards, Library Bureau		28 33	
Furniture and repairs:—			
M. F. Tracy & Son . . .	$297 00		
Worcester Bros.	23 50		
W. W. Robertson . . .	6 50		
T. L. Pierce	9 00		
		336 00	
Fuel, Richardson & Bacon .		294 00	
Heating apparatus, Greene & Co.		20 30	
Ice, Fresh Pond Ice Co. . .		16 75	
Lights : —			
Camb. Electric Light Co. .	816 45		
Cambridge Gas Light Co. .	482		
		821 27	
Lumber, N. N. Stickney . .		9 39	
Map, Geo. H. Walker & Co.		7 00	
Mason work : —			
M. N. Stearns	40 50		
A. Chapin	15 71		
		56 21	
Removing Snow and Ice from Roof, H. F. Peak. . .		15 00	
Recharging Bell Battery, F. M. Buffum		1 60	
Repairs, A. Belluche . . .		1 66	
Shades and Screens, W. W. Pratt		5 75	
Special Plans, Van Brunt & Howe		20 00	
Services : —			
H. F. Hewes	35 00		
Ellen M. Hinds	124 45		
C. E. Stewart	77 75		
		237 20	
Stationery and printing : —			
Adams & Talbot, assignees	4 75		
Amee Bros.	2 40		
Cashman, Keating & Co. .	9 08		
Amounts carried forward .	$16 23	$14,171 04	$14,640 48

Amounts brought forward .	$16 23	$14,171 04	$14,640 48
H. C. Dimond & Co. . .	2 30		
John Ford & Son . . .	12 50		
Heliotype Printing Co. . .	2 50		
Harvard Printing Co. . .	22 00		
Pulsifer, Jordan & Co. . .	26 70		
Thorp & Martin Mfg. Co. .	12 05		
Samuel Ward Co. . . .	33 95		
W. H. Wheeler	222 25		
		350 48	
Supplies :—			
Burditt & Bynner . . .	55 93		
D. W. Hyde & Co. . . .	4 74		
Hammond Typewriter Co..	3 25		
		63 92	
Total			14,585 44
Balance unexpended . .			$55 04

Public Property (City Buildings, Care and Repairs)

Appropriation			$20,000 00
Transferred from incidental expenses		$96 79	
Surplus revenue		240 20	
			336 99
			$20,336 99

RECEIVED.

Auditor's safe, Old City Hall .		50 00	
For rents:—			
Armories	$800 00		
Tenements	375 00		
Water works, office, etc. . .	2,000 00		
		3,175 00	
Sundries		15 20	
		3,240 20	

EXPENDED.

For salaries of janitors . . .		9,128 81	
Expressage		4 69	
Fuel:—			
Baker, Hunnewell Co. . .	$482 71		
L. G. Burnham & Co. . .	562 20		
P. F. Gayton & Co. . . .	23 22		
Amounts carried forward . .	$1,068 13	$9,133 50	$20,336 99

Amounts brought forward . .	$1,068 13	$9,133 50	$20,336 99
J. A. Heaton	215 20		
H. G. Jordan & Co. . . .	1,269 24		
H. Wellington & Co. . . .	781 70		
Wellington & Buck . . .	50 85		
Weiging coal, H. W. Brooks .	9 23		
		3,394 35	
Lighting:—			
Cambridge Elec. Light Co. .	880 00		
Cambridge Gas Light Co. .	1,221 64		
		2,101 64	
Repairs and alterations:—			
Boiler repairs:—			
Charles River Iron Works . $254 71			
E. B. Dale . . 5 48			
Roberts Iron Works . . . 19 41			
B. F. Sturtevant & Co. . . . 20 92			
	300 52		
Carpentry:—			
Briggs Bros. . . 5 50			
S. Chaplin & Co. 139 00			
Colin Chisholm . 32 90			
I. P. Estes . . 35 45			
W. H. Norris . 770 67			
Phillips Bros. & Co. 20 40			
John Quin . . 10 56			
M. N. Stearns . 1 10			
C. L. Weldon . 60 00			
	1,075 58		
Carpet cleaning, Geo. F. Ricker .	19 72		
Clock repairs:—			
John Gill . . 13 00			
Sundry persons, 8 50			
	21 50		
Drain work, Samuel McCulloch .	56 00		
Furniture repairs:			
Phillips Bros. & Co. . . . 74 05			
Sundry persons . 7 35			
	81 40		
Amounts carried forward	$1,554 72	$14,629 49	$20,336 99

Amounts brought forward	$1,554 72	$14,629 49	$20,336 99
For heating apparatus repairs: —			
D. W. Gage . . $100 40			
S. C. Higgins . 40 32			
Chas. K. Hooker 64 36			
	205 08		
Lettering, Clifford Hunting . . .	1 50		
Lighting apparatus repairs:—			
N. W. Turner Co. 93 59			
Sundry persons 11 90			
	105 49		
Masonry:—			
M. N. Stearns . 67 06			
Sundry persons 6 60			
	73 66		
Painting, glazing, etc.:—			
J. L. P. Ackers . 115 00			
A. F. Baker . . 21 75			
W. J. Edwards . 357 15			
W. B. Holt . . 30 00			
Leach, Grant Co. 93 00			
Carl A. Loges . 5 20			
C.E. McMenimen 6 40			
J. H. & J. P. Thayer & Co. . 95 11			
F. H. Tufts . . 6 00			
Sundry persons . 12 70			
	742 31		
Plumbing:—			
A. Baumeister . 24 21			
M.F.Davlin & Co. 4 55			
Geo. V. Eldridge 249 50			
Levi Hawkes . 65 01			
S. C. Higgins . 33 19			
Chas. K. Hooker 14 43			
D. J. Keefe & Co. 13 75			
H. L. Rose . . 17 24			
	421 88		
Repairing flag, G. Richardson . .	3 00		
Amounts carried forward .	$3,107 64	$14,629 49	$20,336 99

Amounts brought forward		$3,107 64	$14,629 49	$20,336 99
For repairing truck, J. R. Worthen		1 50		
Roof repairs, David Young . .		10 00		
		———	3,119 14	
Supplies:—				
Brooms and brushes:—				
Chas. A. Austin & Co. . . .	$34 00			
F. M. Eaton .	13 50			
A. M. Robbins	1 00			
A. Worcester & Sons . . .	10 50			
	———	59 00		
Cleaning Powder, Eagle Chemical Co.		12 80		
Furniture and Furnishings:—				
A. J. Applegate .	13 50			
James Furfey .	14 20			
Horgan, Robey & Co.	12 00			
Irving & Casson	28 00			
C. B. Moller . .	43 83			
J. M. Oxford & Co.	8 00			
Phillips Bros. & Co.	227 85			
W. W. Pratt . .	72 50			
A. Worcester & Sons	11 13			
Worcester Bros. .	172 17			
	———	603 18		
Galvanized sheaves, Boston & Lockport Lumber Co.		39 90		
Hardware, tools and supplies:				
C. L. Bradlee .	11 55			
Brock Bros. . .	6 48			
Burditt & Bynner	17 51			
Cotton & Gould .	24 50			
Amounts carried forward	$60 04	$655 88	$17,748 63	$20,336 99

Amts. brought forward .	$60 04	$714 88	$17,748 63	$20,336 99
James Maitland .	12 65			
F. A. White . .	66 54			
J. R. Worthen .	4 05			
Sundry persons .	9 10			
		152 38		
For Ice, Fresh Pond Ice Co.		63 26		
Lighting apparatus:—				
Beacon Vacuum Pump & Electric Co. . . .	70 35			
Geo. F. Dickson .	15 50			
Germania Electric Co. . . .	30 35			
Inspection of Wires Dept. .	29 50			
Pettingell, Andrews & Co. .	10 46			
N. W. Turner Co.	207 74			
		363 90		
Lubricator, Star Brass Mfg. Co.		17 00		
Lumber: —				
George W. Gale Lumber Co. . .	1 90			
J. Sewell & Co. . .	6 84			
Sewell, Adams & Co.	26 10			
Wm. H. Wood & Co.	12 66			
		47 50		
Magnabestos covering, S. C. Nightingale & Childs . .		14 48		
Metal work in vault:—				
Chas. E. Pierce & Co.	18 00			
Geo. H. Richter & Co.	175 00			
		193 00		
Oil, E. Norris . . .		46 05		
Rubber goods, Boston Woven Hose and Rubber Co. . .		17 30		
Amounts carried forward . .		$1,629 75	$17,748 63	$20,336 99

Amounts brought forward . .		$1,629 75	$17,748 63	$20,336 99
For soap:—				
C. F. Hatch . . .	$6 00			
Hoxie Mineral Soap Corporation . .	6 25			
Lysander Kemp & Sons	9 00			
Arthur H. Smith .	9 00			
Torrey & Bentley .	11 88			
		42 13		
Sundry supplies:—				
Cotton & Gould .	12 00			
Edw. B. Dale . .	5 00			
D. H. Dean . . .	7 50			
Diamond Match Co.	5 25			
D. W. Hyde & Co.	10 43			
Leyland Mfg. Co.	19 35			
Chas. Munroe . .	11 79			
Sundry persons . .	12 35			
		83 67		
Vault in Ward Four building, M. N. Stearns		798 00		
Waste, L. W. Ferdinand & Co. . . .		9 81		
Wire railing, Morss & Whyte		25 00		
			2,588 36	
Total				$20,336 99

School Houses, Care and Repair.

Appropriation			$43,000 00
Transferred from Incidental Expenses			254 11
			$43,254 11
EXPENDED			
For salaries of janitors . . .		$19,600 40	
Cleaning vaults:—			
Eastern Fertilizer Co. . .	$23 60		
W. B. Mullen	20 65		
		44 25	
Expressage and moving furniture		35 73	
Amounts carried forward . . .		$19,680 38	$43,254 41

Amounts brought forward .			$19,680 38	$43,254 11
For fuel:—				
Baker, Hunnewell Co. . .		$2,923 21		
L. G. Burnham & Co. . .		1,913 40		
Coleman Bros.		2,494 12		
P. F. Gayton & Co. . . .		185 73		
J. A. Heaton		1,784 62		
H. G. Jordon & Co. . . .		1,525 47		
C. W. H. Moulton . . .		4 20		
Wellington & Buck . . .		148 75		
H. Wellington & Co. . .		3,804 65		
Weighing, H. W. Brooks .		103 08		
			14,887 23	
Lights:—				
Cambridge Electric Lt. Co.		1,330 50		
Cambridge Gas Lt. Co. .		844 12		
			2,174 62	
Repairs and alterations:—				
Blackboards:—				
J. A. Swasey . .	$40 00			
J. L. Hammett . .	53 00			
		93 00		
Carpentry:—				
J. E. Dennison . .	3 75			
I. P. Estes . . .	59 21			
F. B. Furbish . .	190 00			
L. Hayden . . .	36 15			
W. N. Norris . .	975 64			
John Quin . . .	63 41			
W. H. White . .	14 22			
		1,342 38		
Clocks:—				
A. J. Applegate .	28 00			
J. F. Bacon . . .	2 70			
Simon Flaig . . .	18 00			
James Major . .	1 25			
J. W. Marshea . .	11 00			
		60 95		
Drain work, Samuel McCulloch . . .		106 23		
Flagstaff, N. C. Littlefield		2 00		
Furniture		7 00		
Gong:—				
F. M. Buffum . .	19 23			
D. J. Wild & Co. .	1 25			
		20 48		
Amounts carried forward . .		$1,632 04	$36,742 23	$43,254 11

Amounts brought forward . .		$1,632 04	$36,742 23	$43,254 11
For heating apparatus:—				
G. C. Duncklee & Co.	$6 50			
S. C. Higgins . .	588 49			
C. K. Hooker . .	277 89			
Magee Furnace Co.	15 50			
Moore & Ricker .	275 23			
Moynahan & Co. .	71 54			
J. M. Price & Son .	387 57			
SmeadWarming Co.	40 94			
Roberts Iron Works	1 25			
D. J. Wild & Co. .	2 90			
		1,667 81		
Mason work:—				
J. W. Crocker . .	22 88			
J. Delaney . . .	37 91			
Wm. J. Heron . .	6 45			
C. H. & P. J. Lambert	4 00			
M. N. Stearns . .	82 37			
		153 61		
Painting, glazing and whitening:—				
J. L. P. Ackers . .	374 08			
W. J. Edwards . .	63 07			
Henry Everiss . .	1 50			
J. D. Ford . . .	4 85			
W. B. Holt . . .	33 15			
T. F. McCue . .	10 25			
C. E. McMenimen	3 50			
J. H. & J. P. Thayer & Co.	57 59			
F. H. Tufts . . .	28 25			
Geo. U. Young . .	6 69			
		582 93		
Plumbing:—				
A. Baumeister . .	1 00			
Levi Hawkes & Co.	74 15			
M. E. Davlin . .	27 90			
Geo. V. Eldredge .	93 26			
D. J. Keefe & Co.	25 78			
H. L. Rose . . .	63 75			
D. J. Wild & Co. .	8 35			
		294 19		
Amounts carried forward . . .		$4,330 58	$36,742 23	$43,254 11

Amounts brought forward . .		$4,330 58	$36,742 23	$43, 254 11
For roof repairs:—				
John J. Blevins .	$86 49			
M. F. Marks . . .	26 00			
		112 49		
Sundry repairs . . .		8 65		
			$4,451 72	
Supplies:—				
Disinfectants:—				
Boston Germicide Co.	47 77			
C. W. Lerned & Co.	35 00			
		82 77		
Dusters, Brushes, Mops, etc.:—				
C. A. Austin & Co.	136 14			
Burditt & Bynner .	2 00			
Dover Stamping Co.	16 00			
F. M. Eaton . .	10 50			
A. Worcester & Sons	84 21			
		248 85		
Furniture and furnishings:—				
James Furfey . .	83 04			
John H. Kelsey .	2 25			
J. Otis McFadden .	2 50			
Norcross, Mellen & Co.	2 50			
Phillips Bros. . .	22 25			
W. W. Pratt . .	59 20			
Geo. S. Perry & Co.	177 91			
F. P. Snyder . .	10 00			
Worcester Bros. .	10 00			
		369 65		
Furnaces:—				
Magee Furnace Co.	110 00			
Moore & Ricker .	625 00			
D. J. Wild & Co. .	265 00			
		1,000 00		
Hardware, tools, etc.:				
C. L. Bradlee . .	6 90			
Burditt & Bynner .	56 83			
Brock Bros. . . .	49 29			
A. F. Chadwick .	1 11			
F. Clover	2 80			
Amounts carried forward	$116 93	$1,701 27	$41,193 95	$43,254 11

Amounts brought forward	$116 93	$1,701 27	$41,193 95	$43,254 11
N. C. Littlefield .	75			
James Maitland .	2 34			
J. M. Price & Son .	110 01			
A. M. Robbins . .	10 67			
F. A. White . . .	72 81			
Wright & Scorgie .	1 25			
		314 76		
For sundries		14 36		
Waste Baskets, Cotton & Gould . .		19 50		
Wire Guards, Morss & Whyte		10 27		
			2,060 16	
Total				$43,254 11

Public Property, (New Engine House in Ward One).

Appropriation				$12,000 00
EXPENDED.				
For Advertising, James Cox . .			$1 42	
Contract for building, John McDonald & Son			5,390 00	
Plans etc., Wilfred A. Norris .			250 00	
Total				5,641 42
Balance unexpended . .				$6,358 58

New Engine House in Ward Three.

Appropriation				$10,448 56
EXPENDED.				
For Carpentry:—				
C. L. Weldon . . .	$94 16			
John Barker	7 66			
			$101 82	
Connecting lamps, Dept. of Inspector of wires			40 00	
Contract for building, The Leach, Grant Co.			8,608 60	
Contract for heating apparatus Lynch & Woodward . . .			625 00	
Amounts carried forward			$9,375 42	$10,448 56

Amounts brought forward		$9,375 42	$10,448 56
For mason work, M. N. Stearns		73 95	
Door springs, etc., C. Callahan Co.		94 00	
Fittings, C. E. Berry		60 00	
Hardware and supplies:			
C. L. Bradlee	$1 00		
J. M. Price & Son	35 98		
		36 98	
Hose washer trough, C. S. Hibbert		80 00	
Labor, Street Dept.		17 50	
Lumber, Geo. W. Gale Lumber Co.		3 13	
Mantle shelves, G. F. Erickson		4 00	
Plans specifications, J. E. Muldoon		449 61	
Plumbing:—			
A. W. Balcom	81 25		
H. L. Rose	12 67		
		93 92	
Painting:—			
J. R. Mills	12 90		
J. J. Shedd	139 00		
		151 90	
Service pipe, etc. Camb. Gas Light Co.		7 14	
Total			10,447 55
Balance unexpended			$1 01

New Engine House in Ward Four.

Appropriation	$22,000 00
Additional appropriations	5,500 00
	$27,500 00

EXPENDED.

For advertising, James Cox	$2 40	
Contract for building, J. McDonald & Son	14,328 54	
Copying deeds, E. W. Pike	5 00	
Edgestone, Austin Ford & Son	309 13	
Gravel, Street Dept.	15 00	
Amounts carried forward	$14,660 07	$27,500 00

Amount brought forward . . .		$14,660 07	$27,500 00
For labor, Street Dept.		258 97	
Paving blocks, Street Dept. .		167 58	
Plans and specifications, Condon & Greco		764 19	
Professional services, Wm. V. Thompson		5 00	
Sods, R. T. Ross		7 50	
Total			15,863 31
Balance unexpended . .			$11,636 69

New School House in Ward Two.

Appropriation			$15,000 00
Transferred from Incidental Expenses			1,800 00
			$16,800 00

EXPENDED.

For building, Briggs Bros. . .		$12,480 48	
Plans, etc., C. H. McClare . .		486 87	
Total			12,967 35
Balance unexpended . .			$3,832 65

Public Property (Construction and Alteration.)

Old High School House.

Appropriation			$1,500 00

EXPENDED.

For advertising, James Cox . .		$1 32	
Carpentry:—			
T. B. Wentworth	$109 33		
W. H. White	16 55		
		125 88	
Mason work, J. G. Neill . . .		6 00	
Roof repairs, John J. Blevins .		1,288 80	
Ventilators:—			
Geo. V. Eldridge	36 00		
S. C. Higgins	42 00		
		78 00	
			$1,500 00

Police Station, Ward Three.

Appropriation			$11,000 00
Transferred from Land for Engine House in Ward One			75 00
			$11,075 00

EXPENDED.

For advertising, James Cox . .		$2 07	
Carpentry, W. N. Norris . . .		9 02	
Contract for alterations, Alfred H. Hines	$10,451 00		
Extra work	83 00		
		10,534 00	
Hardware, W. I. Mabie . . .		9 41	
Laying artificial stone floor:— W. A. Murtfeldt		90 00	
Painting sign, John H. Lamson		10 50	
Plans, etc., C. H. McClare . .		375 00	
Whitening and tinting, J. L. P. Ackers		45 00	
Total			$11,075 00

Putnam School House.

Appropriation, transferred from incidental expenses			$670 00

EXPENDED.

For alterations, John Quin . . .			$670 00

Sanitary Arrangements.

Appropriation . .			$3,000 00
Transferred from Health Dept. . .			550 00
			$3,550 00

EXPENDED.

For Carpentry:—			
S. Chaplin & Co. .	$105 30		
W. N. Norris . .	819 19		
W. E. Rose . .	223 00		
		$1,147 49	
Amounts carried forward .		$1,147 49	$3,550 00

Amounts brought forward		$1,147 49	$3,550 00
For painting, J. L. P. Ackers		7 83	
Piping, J. P. Adams		3 12	
Sanitary Work:—			
Geo. V. Eldridge	$1,467 00		
Henry McShane Mfg. Co. . . .	90 00		
Herbert L. Rose .	783 70		
Troy Bros. & Co. .	50 00		
		2,390 70	
Total			3,549 14
Balance unexpended . . .			86

Wellington School House.

Appropriation	$11,950 00

EXPENDED.

For contract for building, Briggs Bros.	$11,300 00	
Extra work, Briggs Bros. . .	109 24	
Carpentry, W. H. Norris . . .	19 91	
Mason Work, Bellamy & Harris	70 00	
Plans and specifications, C. H. McClare	441 00	
Stove, D. J. Wild & Co. . . .	7 10	
Total		11,947 25
Balance unexpended . .		$2 75

Public Property (Furniture and Furnishings).

Bridge School.

Appropriation transferred from School Dept. salaries	$800 00

EXPENDED.

For blackboards, J. A. Swasey .	$30 00	
Clocks, A. J. Applegate . . .	20 00	
Amounts carried forward . .	$50 00	$800 00

Amounts brought forward . .		$50 00	$800 00
For furniture:—			
Chandler Adjustable Chair & Desk Co.	$170 00		
W. H. Norris	19 00		
Paine's Furniture Co. . . .	10 45		
Geo. S. Perry & Co.	360 08		
Phillips Bros. & Co. . . .	85 00		
		644 53	
Gas fixtures, N. W. Turner Co.		38 00	
Mats, James Furfey		18 29	
Shades, W. W. Pratt		46 40	
Total			797 22
Balance unexpended . .			$2 78

Public Property (Furniture and Furnishings).

Manual Training School.

Appropriation			$1,500 00

EXPENDED.

For clocks, Nelson H. Brown . .		$52 50	
Furniture and furnishings:—			
Heywood Bros. & Co. . . .	$113 50		
Geo. S. Perry & Co.	808 95		
Joel Goldthwaite & Co. . .	15 00		
Indianapolis Cabinet Co. . .	26 00		
Peabody, Whitney Co. . . .	3 75		
Phillips Bros. & Co. . . .	16 60		
Allen & Lotts	2 50		
Harwood Mfg. Co.	398 91		
Burditt & Bynner	14 55		
Jordan, Marsh & Co. . . .	7 24		
Winkley, Dresser & Co. . .	2 30		
		1,409 30	
Heating apparatus, J. A. Hunter		32 65	
Moving furniture, P. Biggin .		1 00	
Total			1,495 45
Balance unexpended . .			$4 55

Public Property (Furniture and Furnishings).

New High School.

Appropriation			$500 00
EXPENDED.			
For boiler work, Roberts Iron Works		$20 33	
Brass cup, Brock Bros. . . .		1 00	
Clock repairs, Jas. W. Marshea		8 00	
Cash expended for sundries, F. A. Hill		11 77	
Furniture:—			
Globe Furniture Co. . . .	$3 00		
Harwood Mfg. Co.	291 00		
Paine's Furniture Co. . . .	22 50		
	— —	316 50	
Lights, Camb. Electric Lt. Co.		40 00	
Mason work, M. N. Stearns .		32 26	
Painting, etc., J. H. &. J. P. Thayer & Co.		11 82	
Plumbing, H. L. Rose . . .		47 77	
Repairing spring lock, C. L. Bradlee		30	
Tackle blocks, Ames Plow Co.		4 50	
Tools, A. J. Jones		2 25	
Total			496 50
Balance unexpended . .			$3 50

Public Property (Furniture and Furnishings).

Wellington School.

Appropriation			$2,000 00
EXPENDED.			
For ash barrels, Whittier Hardware Co.		$30 00	
Blackboards, J. A. Swasey . .		110 00	
Carpentry:—			
W. H. Norris	$434 72		
Briggs Bros.	40 00		
	— —	474 72	
Clocks, A. J. Applegate . . .		31 50	
Amounts carried forward . .		$646 22	$2,000 00

Amounts brought forward . .		$646 22	$2,000 00
For furniture, etc.:—			
Heywood Bros. & Co. . . .	$21 50		
Geo. S. Perry & Co.	776 20		
Phillips Bros. & Co. . . .	76 25		
W. W. Pratt	70 25		
C. B. Moller	30 28		
Paine's Furniture Co. . . .	16 95		
T. B. Wentworth	130 67		
		1,122 10	
Gong, F. M. Buffum		8 90	
Hooks, Geo. W. Knowlton . .		1 25	
Labor, Wm. H. White . . .		21 78	
Lettering, J. L. Ackers . . .		5 40	
Mason work, Bellamy & Harris		10 50	
Moving Furniture:—			
P. Biggen	1 00		
J. R. & C. S. Hersum . . .	32 62		
		33 62	
Paving, Street Dept.		125 00	
Plumbing, Levi Hawkes . . .		5 88	
Wire guards, Morss & Whyte .		19 35	
Total			$2,000 00

Public Property (Incidentals).

Appropriation			$3,500 00
Transferred from Incidental Expenses			214 32
			$3,714 32

EXPENDED.

For salaries of :—			
Supt. of Buildings, Benjamin H. Steele	$1,750 00		
Inspector of Buildings, James Richardson	1,000 00		
Clerk, Eben W. Pike . . .	208 66		
		$2,958 66	
Advertising, James Cox . . .		4 14	
Board of horse, G. D. Merrill & Co.		300 00	
Care and repair of tower clocks		168 05	
Carpentry, W. H. Norris . . .		20 93	
Carriage repairs		26 00	
Amounts carried forward . .		$3,477 78	$3,714 32

Amounts brought forward . .		$3,477 78	$3,714 32
For car tickets		15 00	
Directory		3 00	
Expenses of Committee on Public Property:—			
Carriage hire	$54 50		
Refreshments	16 00		
		70 50	
Expenses of rifle range:—			
Labor and supplies	23 37		
Rent of land	60 00		
		83 37	
Horse-shoeing		23 01	
Stationery, printing and postage		41 66	
Total			$3,714 32

Land for Engine House in Ward One.

Appropriation			$4,000 00
Transferred to			
Election expenses of Superintendent of Buildings . . .		$400 00	
Police station, Ward Three . .		75 00	
			475 00
			$3,525 00

EXPENDED.

For examination of title, Wm. V. Thompson		$25 00	
Land, Phillipa R. Kinnear . .		3,500 00	
			$3,525 00

School Department, Incidentals.

Appropriation			$1,600 00
Transferred from School Department, T. B. and S.			75 00
			$1,675 00

EXPENDED.

For salaries:—			
Secretary, S. B. Hubbard . . .	$300 00		
Page, Wm. A. Walker	35 00		
		$335 00	
Advertising		53 38	
Boxes, Chas. Place		2 20	
Amounts carried forward . .		$390 58	$1,675 00

Amounts brought forward . .		$390 58	$1,675 00
For binding documents, J. H. H. McNamee		7 20	
Car tickets, W. E. St. Railway Co.		175 00	
Collecting statistics, S. B. Hubbard		6 00	
Cash expended for sundries, Francis Cogswell		70 31	
Electrotyping, Cashman, Keating & Co.		23 50	
Engraving:—			
Suffolk Engraving Co. . . .	$2 30		
Boston Bank Note and Lithographing Co.	22 50		
		24 80	
Examination of bill for reports, Chas. Walker		5 00	
High school graduating exercises:—			
F. E. Chapman	25 90		
Oliver Ditson & Co.	4 69		
F. A. Hill	19 28		
		49 87	
Photos and cuts, D. W. Butterfield		27 86	
Printing:—			
Harvard Printing Co. . . .	849 87		
John Ford & Son	6 50		
John Wilson & Son	3 00		
		859 37	
Total			1,639 49
Balance unexpended . . .			$35 51

School Department, Salaries.

Appropriation		$222,000 00
Transferred to Bridge School furniture		800 00
		$221,200 00

RECEIVED.

For Income from Hopkins' Fund .	$753 14	
Tuition of Non-Resident Pupils	677 50	
	$1,430 64	
Amount carried forward . . .		$221,200 00

Amount brought forward . . .			$221,200 00

EXPENDED.

For salaries:—			
Superintendent, Francis Cogswell		$3,000 00	
Supt's. Clerk, Althea B. Frost .		530 00	
Agent, S. B. Hubbard		1,730 00	
Special instructors:—			
Drawing,			
Walter F. Brackett . . .	$1,190 00		
James M. Stone	510 00		
Gymnastics, Clara E. Sheppard	75 00		
Music, Frederick E. Chapman	1,730 00		
Primary Department,			
Lelia B. Mirick	1,000 00		
Sewing,			
Agnes Gordon	600 00		
Georgia Jones	420 00		
Alice H. Nay	285 00		
Sarah J. Stanton	51 75		
		5,861 75	
Teachers in			
Latin school	13,425 66		
English High school . . .	22,095 00		
Grammar schools	89,362 50		
Primary schools	60,411 45		
Wellington Training school .	9,360 00		
Kindergarten schools . . .	6,475 10		
		201,129 71	
Teachers in evening schools,			
Drawing	1,531 00		
High	1,363 00		
Allston	650 50		
Putnam	942 50		
Webster	531 50		
		5,018 50	
Truant officers		3,341 66	
Total			220,611 62
Balance unexpended . . .			$588 38

School Department, Text Books and Supplies.

Appropriation		$16,000 00
Transferred to school department, incidentals		75 00
		$15,925 00

RECEIVED.

For sale of books and supplies .	$290 00

EXPENDED.

For apparatus and supplies:—		
Brown, Durrell & Co. . . .	$56 57	
Brock Bros.	120 00	
Bryant, L. L.	19 80	
Burditt & Williams	191 04	
Cambridge Brass Co. . . .	5 25	
Ceiley & Wright	2 63	
Caproni & Bro.	36 77	
Carey, Henry G.	35 00	
Davidson Rubber Co. . . .	61 21	
Dennison Mfg. Co.	8 75	
Eimer & Amend	66 95	
Frost & Adams	166 72	
Frazar, Geo. B.	2 35	
Fairbanks Co.	4 50	
French, Abram & Co. . . .	9 00	
Gillis & Gleeson	9 00	
Greenough, Adams & Cushing	912 68	
Groom, Thomas & Co. . . .	8 50	
Hall, Thomas & Son . . .	3 00	
Horgan, Roby & Co. . . .	17 50	
Hammett, J. L.	216 90	
Holton, F. H. & Co. . . .	12 00	
Harper & Bros.	20 63	
Harwood Bros.	16 25	
D. W. Hyde & Co.	1 40	
King & Merrill	444 35	
Lambert Bros.	2 64	
Merrimac Chemical Co. . .	25 02	
Geo. G. Page Box Co. . . .	1 20	
Pulsifer, Jordan & Co. . .	1,570 18	
Amounts carried forward .	$4,047 79	$15,925 00

Amounts brought forward .	$4,047 79		$15,925 00
Perry, Geo. S. & Co. . . .	529 22		
Prang, Ed. Co.	560 60		
Queen & Co.	93 83		
E. S. Ritchie & Sons . . .	235 15		
Geo. H. Richter & Co. . .	40 05		
Standard Turning Works . .	2 00		
H. A. Scranton	49 40		
Thompson, Brown & Co. . .	10 00		
Thorp & Martin Mfg. Co. .	14 00		
Wheeler, Blodgett & Co. . .	45 89		
Winkley, Dresser & Co. . .	60 96		
Weeks & Potter Co. . . .	29 85		
Whitall, Tatum & Co. . . .	3 42		
		5,722 16	
For binding books, J. H. H. McNamee		173 59	
Books:—			
Allyn & Bacon	7 76		
American Baptist Pub. Co.	8 75		
American Book Co. . . .	1,444 81		
D. Appleton & Co. . . .	36 00		
Boston School Supply Co.	26 49		
E. E. Babb & Co. . . .	61 01		
Otis Clapp & Sons . . .	4 80		
De Wolfe, Fiske & Co. . .	85 63		
Oliver Ditson Co. . . .	35 24		
Franklin Ed. Co. . . .	69 40		
Ginn & Co.	1,927 97		
Houghton, Mifflin & Co. .	1,546 25		
D. C. Heath & Co. . . .	433 86		
Leach, Shewell & Sanborn	166 10		
D. Lothrop Co.	117 47		
Lee & Shepard	304 11		
Little, Brown & Co. . .	666 81		
N. E. Publishing Co. . .	8 60		
J. S. Rounds	39 19		
C. Schoenhof	228 66		
Willard Small	82 92		
Silver, Burdett & Co. . .	86 92		
Thompson, Brown & Co.	824 83		
University Pub. Co. . .	189 38		
Wm. Ware & Co. . . .	536 71		
		8,939 67	
Amounts carried forward .		$14,835 42	$15,925 00

Amounts brought forward .		$14,835 42	$15,925 00
For cash expended for sundries:			
S. B. Hubbard	$16 82		
C. B. Parmenter	41 55		
Emma A. Scudder . . .	9 20		
Delia Stickney	3 83		
		71 40	
Carpentry, W. H. Norris . .		10 50	
Diplomas, Boston Bank Note and Lith. Co.		117 89	
Directories, E. F. Hunt & Co.		6 00	
Engrossing diplomas, Henry W. Stone		29 85	
Expressage		205 30	
Printing:—			
James H. Cox	25 00		
J. Frank Facey	6 00		
John Ford & Son . . .	37 50		
Harvard Printing Co. . .	197 24		
G. B. Lenfest	137 75		
L. F. Weston	76 75		
		480 24	
Tuning pianos, L. M. Eldridge		10 50	
Total			15,767 10
Balance unexpended . .			$157 90

Sealer of Weights and Measures.

Appropriation			$1,600 00
Transferred from Incidental Expenses			150 00
			$1,750 00

RECEIVED.

For fees for sealing		$366 99	

EXPENDED.

For salaries:—			
Sealer, A. F. Roberts . . .	$800 00		
Assistant, C. D. Kinnear .	230 00		
		$1,030 00	
Amounts carried forward .		$1,030 00	$1,750 00

Amounts brought forward .		$1,030 00	$1,750 00
For advertising, James Cox . .		5 78	
Board and care of horse and wagon, G. D. Merrill & Co.		300 00	
Car tickets, W. E. St. Railway Co.		20 00	
Directory, E. F. Hunt & Co.		3 00	
Hardware, tools, etc.:—			
Frye, Phipps & Co. . .	$2 50		
F. A. White . . . . - .	2 72		
Whittier Hardware Co. .	2 50		
		7 72	
Horse-shoeing, J. W. Gerry		9 50	
Posting notices, G. B. Morton		3 00	
Repairing scales:—			
Allen & Endicott Co. . .	12 00		
Fairbanks Co.	54 93		
Sewell & Adams . . .	65 95		
M. N. Stearns	77 99		
		210 87	
Stamps and brands, C. F. Brown		9 09	
Stationery and printing:—			
Harvard Printing Co. . .	4 75		
Stationery Department .	8 78		
		13 53	
Wagon repairs, Nelson Carriage Co.		33 85	
Weighing fees, Thomas Gurnham		8 59	
Total			1,654 93
Balance unexpended .			$95 07

Sewers (Construction).

Appropriation		$20,000 00
Surplus revenue	$7,528 26	
Transferred from Sewers, Maintenance	5,000 00	
		12,528 26
Amount carried forward . .		$32,528 26

Amount brought forward . .			$32,528 26
Transferred to Overseers of the Poor, House Offal		747 23	
Transferred to Overseers of the Poor, Outside Aid		4,220 95	
Transferred to Sewers, Maintenance		1,779 67	
Transferred to Street Dept., Paving Cambridge St. . . .		800 00	
			7,547 85
			$24,980 41

RECEIVED.

For permits to connect with sewers		$135 02	
Sewer assessments		18,393 24	
		$18,528 26	

EXPENDED.

For labor as per pay-rolls . .		$12,304 70	
Bricks, Wm. C. Norcross . .	$154 80		
Parry Bros. & Co. . . .	2,166 30		
		2,321 10	
Carpentry, J. H. Keenan . .		23 90	
Carriage hire, Chas. W. Dailey		6 00	
Castings:—			
Barbour, Stockwell Co. .	262 63		
Concord Foundry Co. . .	30 00		
Mechanics' Iron Foundry .	472 82		
		765 45	
Cutting stone, Austin Ford & Son		97 75	
Fuel:—			
Baker-Hunnewell Co. . .	32 42		
Coleman Bros.	112 91		
		145 33	
Gravel:—			
Charles Linehan	18 25		
James Shea	3 00		
		21 25	
Hardware and tools:—			
Burditt & Bynner . . .	6 75		
H. A. Scranton	6 00		
		12 75	
Amounts carried forward .		$15 698 23	$24,980 41

Amounts brought forward .		$15,698 23	$24,980 41
For labor, B. & M. R. R. Co. .		62 09	
Lumber, E. D. Sawyer & Co.		1,626 96	
Manhole pattern, Walter F. Norman		25 00	
Oil, Standard Oil Co. . . .		3 88	
Pipe and cement:—			
D. W. Lewis	$129 06		
Portland Stone Ware Co. .	2,896 91		
Waldo Bros.	536 93		
		3,562 90	
Piles, John T. Scully . . .		398 51	
Rebate of assessment, Rosanna Murphy		9 07	
Repairing lawn, F. Fischer .		10 00	
Repairing trench on Broadway, Street Department .		54 00	
Repairing tools:—			
Chas H. Goldsmith . . .	3 30		
Wight & Scorgie . . .	63 43		
		66 73	
Sand:—			
John F. O'Brien	9 00		
John T. Scully	34 50		
		43 50	
Stone:—			
John J. Cuddihy	128 00		
Austin Ford & Son . . .	280 00		
Maher Bros.	136 32		
Overseers of the Poor . .	1 46		
		545 78	
Teaming:—			
P. Biggin	98 88		
Thos. O'Hara	855 50		
		954 38	
Testing cast iron:—			
Maj. J. W. Reilley, U. S. A.		5 50	
Traps, Boston Double Catch Basin, Sewer and House Trap Co.		69 80	
Use of engine, E. R. Cheney		175 00	
Water supply, Cambridge Water Works		6 04	
Total			23,317 37
Balance unexpended . .			$1,663 04

Sewers (Maintenance).

Appropriation			$23,000 00
Transferred from Sewers, Construction			1,779 67
			$24,779 67
Transferred to Sewers:—			
Construction		$5,000 00	
Street Department, Paving, Edgestones and Sidewalks .		1,000 00	
Street Department, Paving Cambridge Street		1,500 00	
			7,500 00
			$17,279 67

RECEIVED.

From City of Somerville, for a portion of the expense of cleaning the outlet to the Bridge Street Sewer . . .	$1,353 98	
For catch basins	24 11	
Connecting sewer	41 60	
Old iron castings	60 97	
Rent of house	108 00	
Sundries	15 15	
	$1,603 81	

EXPENDED.

For salaries:—			
Superintendent, T. L. Pike .	$1,700 00		
Clerk, Mary E. Rowen . . .	315 00		
Laborers	7,381 78		
		$9,396 78	
Advertising:—			
Boston Herald Co. . . .	4 38		
James Cox	2 48		
		6 86	
Bricks:—			
Wm. C. Norcross	13 50		
Parry Bros. & Co. . . .	176 40		
		189 90	
Brooms, C. W. Carman . .		3 63	
Canvas covers, Nolan Bros. .		30 00	
Amounts carried forward . .		$9,627 17	$17,279 67

Amounts brought forward . .		$9,627 17	$17,279 67
For carpentry:—			
S. Chaplin	$4 00		
J. H. Keenan	165 50		
		169 50	
Car tickets, W. E. Street Rail-Co.		60 00	
Cash expended for damages, T. L. Pike		20 00	
Castings:—			
Barbour, Stockwell Co. . .	74 84		
Mechanics' Iron Foundry .	81 12		
		155 96	
Cleaning catch-basins, John Horrigan		2,010 00	
Cordage, M. F. Whiton & Co.		35 28	
Couplings, Boston Woven Hose and Rubber Co. . .		19 50	
Drain work, Samuel McCulloch		31 59	
Dredging outlet to Bridge Street Sewer, Boynton Bros.		2,184 97	
Expressage, Savage & Son .		3 40	
Fuel, H. G. Jordan & Co. .		36 20	
Gas, Cambridge Gas Light Co.		21 50	
Gravel, Thomas O'Hara . .		16 50	
Hardware, tools and repairs, and supplies:—			
Burditt & Bynner . . .	$219 48		
Edson Mfg. Co.	8 38		
C. H. Goldsmith	19 25		
James Maitland	157 14		
Whittier Hardware Co. .	28 77		
Sundry persons	5 60		
		438 62	
Harness and repairs, John Hancock		30 20	
Hay and grain, E. R. Luke & Co.		376 35	
Horse clipping, John Smith .		6 00	
Horse medicine, A. R. Bayley & Co.		3 55	
Horse-shoeing, John F. Gurry		130 45	
Amounts carried forward .		$15,376 74	$17,279 67

Amounts brought forward .		$15,376 74	$17,279 67
For hose and rubber goods:—			
Boston Woven Hose and Rubber Co.	$37 25		
Conant Rubber Co. . . .	121 50		
		158 75	
Iron work, Miller & Shaw .		41 18	
Ladder, C. W. H. Moulton & Co.		3 00	
Lumber:—			
Geo. W. Gale Lumber Co.	214 17		
E. D. Sawyer & Co. . . .	288 03		
		502 20	
Oatmeal, Chas. James . . .		14 00	
Oil, Standard Oil Co. . . .		15 32	
Oil clothing, H. M. Sawyer & Son		24 00	
Packing, etc., M. F. Whiton & Co.		7 16	
Pipe and cement:—			
Greene & Co.	22 50		
Portland Stone Ware Co. .	288 67		
Waldo Bros.	135 08		
		446 25	
Printing, Jas. H. Cox . . .		4 75	
Rent of land, I. L. Russell .		25 00	
Sand, John T. Scully . . .		28 50	
Sleigh, F. Ivers & Son . .		50 00	
Teaming:—			
P. Biggin	42 23		
Thos. O'Hara	402 25		
B. G. Stockton	4 50		
		448 98	
Teaming pipe, Portland Stone Ware Co.		8 06	
Wagon repairs:—			
F. Ivers & Son	101 00		
Chas. Waugh & Co. . . .	4 50		
		105 50	
Water supply, Cambridge Water Works		20 28	
Total			$17,279 67

Sinking Funds.

Appropriation			$104,095 00
EXPENDED.			
For salaries:—			
Treasurer, Wm. W. Dallinger	$300 00		
Clerk, John McDuffie . . .	25 00		
		$325 00	
Appropriation as required by City Ordinance for payment of debt, Commissioners of Sinking Funds		103,730 00	
Rent, Boston Safe Deposit & Trust Co.		40 00	
Total			$104,095 00

State Aid.

Appropriation			$26,000 00
RECEIVED.			
From the Commonwealth of Massachusetts in reimbursement, in part, of the amount the city has advanced in conformity to the laws of the State, to volunteers and their families or other dependents of volunteers in the army and navy:—			
For military aid	$1,734 94		
State aid	13,108 50		
Burials of soldiers and sailors	292 50		
		$15,135 94	
Aid		24 80	
Money not called for on pay-rolls		134 00	
		$15,294 74	
Amount carried forward . .			$26,000 00

Amount brought forward . .			$26,000 00

EXPENDED.

For salary of clerk, Chas. L. Russell		$900 00	
State Aid	$13,513 00		
Military aid	2,557 00		
Soldiers' and sailors' aid as per pay rolls	6,102 00		
		22,172 00	
Aid by cities and towns:—			
City of Boston	37 59		
Brockton	13 33		
Chicopee	8 95		
Lawrence	65		
New Bedford	45 70		
Town of Wellfleet . . .	12 23		
		118 45	
Board and care:—			
Boston Children's Aid Society	$42 09		
Cambridge Hospital . . .	32 00		
City of Cambridge . . .	481 84		
Danvers Lunatic Hospital .	338 91		
Taunton Lunatic Hospital .	155 12		
Worcester Insane Asylum .	296 67		
Worcester Lunatic Hospital	74 29		
Commonwealth of Massachusetts at:—			
State Farm	146 00		
Taunton Lunatic Hospital	29 25		
		1,596 17	
Burials:—			
David F. Corcoran . . .	35 00		
John W. Coveney . . .	35 00		
Thomas Devens	35 00		
David Fudge	70 00		
H. D. Litchfield	140 00		
James Mullen	35 00		
Wm. Ross & Son	70 00		
James T. & John T. Shea .	35 00		
W. A. Taylor	70 00		
		525 00	
Amounts carried forward . .		$25,311 62	$26,000 00

Amounts brought forward . .		$25,311 62	$26,000 00
For carriage hire, C. W. Dailey		5 00	
Car tickets, W. E. Street Railway Co.		15 00	
Cash expended, C. L. Russell .		1 50	
Directory, E. F. Hunt & Co .		3 00	
Fuel:—			
Geo. M. Smith	$32 25		
H. Wellington & Co. . .	3 35		
		35 60	
Stationery and printing:—			
John Ford & Son	41 00		
Harvard Printing Co. . .	21 00		
Stationery Department . .	9 58		
		71 58	
Supplies, Geo. A. Davis . .		24 00	
Truss, Jaynes & Co. . . .		2 50	
Total			25,469 80
Balance unexpended .			$530 20

Stationery and Printing.

Appropriation			$2,600 00
RECEIVED.			
For supplies		$800 50	
EXPENDED.			
For advertising:—			
James Cox	$170 15		
Camb. Chronicle Co. . . .	2 50		
F. S. Hill	5 88		
		$178 53	
Binding, J. H. H. McNamee		75 16	
Examination of proposals, James Cox		5 00	
Examination of bills for City Documents, Charles Walker		10 00	
Ink outfits, Edgar F. Hunt .		10 00	
Postage, G. W. Ring . . .		500 00	
Amounts carried forward .		$778 69	$2,600 00

Amounts brought forward .		$778 69	$2,600 00
For printing:—			
James H. Cox	$152 25		
John Ford & Son . . .	49 50		
Harvard Printing Co. . .	87 06		
		288 81	
Stationery:—			
Cotton & Gould	337 32		
Cashman & Keating . .	1,090 12		
Winkley, Dresser & Co. .	38 95		
		1,466 39	
Total			2,533 89
Balance unexpended . . .			$66 11

Street Department (Bridges).

Appropriation			$4,500 00

EXPENDED.

For salaries of drawtenders:—			
Wm. Burgess	$1,086 68		
Martin Flaherty	1,043 32		
Nathaniel M. Neale	600 96		
		$2,730 96	
Contract, King Bridge Co. .		918 75	
Displacement of tide water, Commonwealth of Mass. .		26 25	
Drilling holes in granite, Town of Arlington . . .		12 00	
Fuel, Baker-Hunnewell Co.		5 95	
Hardware:—			
Fitch & Co.	11 25		
F. A. White	36		
		11 61	
Lumber, Geo. W. Gale Lumber Co.		85 91	
Oakum, J. Baker & Co. . .		4 50	
Planking Brookline and River Street Bridges, Wm. Miller		579 00	
Total			4,374 93
Balance unexpended . .			$125 07

Street Department (Cleaning Streets).

Appropriation			$23,000 00
Transferred to Street Department, Construction and Repairs			1,000 00
			$22,000 00

RECEIVED.

For scrapings and filling . .	$1,157 00	

EXPENDED.

For sub-foremen:—			
Chas. McHugh	$327 00		
E. Osborn	192 75		
Geo. F. Teague	126 00		
John Reilly	36 00		
Labor as per pay-rolls . . .	13,607 17		
		$14,288 92	
Hay and grain, Wade & Reed Co.		455 00	
Iron work, Miller & Shaw .		11 23	
Scraper, Wm. C. Oastler . .		375 00	
Sweepers and repairs, Edson Manufacturing Co. . . .		612 47	
Steel plate, Geo. W. Tibbetts		17 00	
Tools:—			
Ames Plow Co.	129 48		
Dodge, Haley & Co. . . .	3 23		
		132 71	
Teaming:—			
Peter Burns	122 50		
James Boyle	181 25		
John J. Brassil	113 75		
Wm. Condon	418 75		
Elizabeth Cox	310 00		
James Culhane	390 00		
Patrick Curley	10 00		
Timothy Cosgrove . . .	143 75		
Timothy A. Callahan . .	47 50		
P. H. Dardis	70 00		
John A. Egan	340 00		
Amounts carried forward .	$2,147 50	$15,892 33	$22,000 00

Amounts brought forward .	$2,147 50	$15,892 33	$22,000 00
Patrick Finnerly	196 25		
Jos. Finnick	181 25		
John Gallivan	153 75		
James Gray	165 00		
Wm. Hart	463 75		
Martin Kneeland	67 50		
Chas. Linehan	195 00		
Chas. H. Linehan . . .	200 00		
Robt. Leary	66 25		
Edward Linch	143 75		
Jeremiah McCrehan . . .	72 50		
Chas. McMahon	82 50		
J. P. McSorley	110 00		
Thomas McSorley . . .	25 00		
Timothy Murphy . . .	147 50		
John McClellan	307 50		
J. A. McSorley	82 50		
Elizabeth Martell . . .	22 50		
Elizabeth McCrehan . .	28 75		
Robert Nixon	38 75		
Thomas O'Hara	85 00		
David O'Mara	85 00		
Michael O'Neil	55 00		
Michael O'Sullivan . . .	183 75		
John Quinn	82 50		
John Quinn, Jr.	200 00		
R. T. Ross	101 25		
John M. Riley	25 00		
Patrick Riley	45 00		
Jeremiah Sullivan . . .	158 75		
M. J. Shea	63 75		
Barry F. St. George . .	10 00		
Peter Tumilty	100 00		
		6,092 50	
Use of wagon, Chas. Waugh & Co.		10 00	
Total			21,994 83
Balance unexpended . .			$5 17

Street Department (Collection of Ashes).

Appropriation			$15,000 00
Transferred from Street Department, Maintenance			750 00
			$15,750 00

RECEIVED.

For sale of ashes	$1,098 45	
Sale of horse	75 00	
	$1,173 45	

EXPENDED.

For labor as per pay-rolls		$13,544 86	
Carpentry, Ira G. Hersey		11 71	
Hardware and tools:—			
Ames Plow Co.	$1 68		
Dodge, Haley & Co	296 58		
F. A. White	3 85		
		302 11	
Harness, Hugh McCaffrey		19 50	
Hay and grain:—			
A. W. Goodnow	812 46		
Wade & Reed Co.	455 00		
		1,267 46	
Horse covers, James Martin & Son		57 65	
Horse-shoeing, Wm. Balmer		24 00	
Horses, P. H. Dardis		450 00	
Lumber, Geo. W. Gale Lumber Co.		11 09	
Total			15,688 38
Balance unexpended			$61 62

Street Department (Construction and Repairs).

Appropriation	$68 000 00
Transferred from Street Dept.:	
Maintenance	850 00
Cleaning	1,000 00
Amount carried forward	$69,850 00

RECEIVED.

Amount brought forward . .			$69,850 00
For ballast		$28 50	
Error on pay roll		90 45	
Filling		2 00	
Fence at Alewife Brook . .		41 65	
Feeding horses impounded. .		5 50	
Gravel		3 00	
Horses		160 00	
Labor and materials . . .		108 00	
Manure		50 75	
Piece of granite		1 50	
Sand		1 50	
Shoeing horse		2 00	
Stone dust		30 00	
Stone screenings		6 00	
Stone, cracked		116 50	
Use of steam roller and gravel		122 00	
		$769 35	

EXPENDED.

For salaries of foremen:—			
C. A. Brown	$1,238 50		
J. A. Sheridan	1,240 50		
Sub-foremen:—			
Chas. McHugh	174 00		
E. Osborn	300 00		
John Reilly	84 00		
Geo. F. Teague	19 50		
Labor as per pay-rolls . . .	28,288 46		
		31,344 96	
Broom stock, Asa Duren . .		26 40	
Covering boilers:—			
Chicago Fire Proof Co. . .	36 00		
Edward Kendall & Sons .	60 00		
		96 00	
Carpentry:—			
Ira G. Hersey	54 29		
J. H. Keenan	26 00		
Kelley & McKinnon. . .	1,027 00		
		1,107 29	
Carriage and wagon repairs:—			
F. Ivers & Son	70 50		
A. J. Jones	3 00		
Amounts carried forward . .	$73 50	$32,574 65	$69,850 00

Amounts brought forward . .	$73 50	$32,574 65	$69,850 00
Hugh Stewart & Co. . . .	3 50		
Chas. Waugh & Co. . . .	56 35		
A. M. Wood & Co. . . .	4 55		
		137 90	
Cash expended, E. H. Reed .		6 48	
Doors and windows:—			
Slattery & D'Arcy . . .	4 00		
Levi Boles & Son	4 55		
		8 55	
Duck, James Martin & Son .		2 83	
Expressage, Savage & Son .		1 05	
Fuel:—			
Baker-Hunnewell Co. . .	389 26		
H. G. Jordan & Co. . . .	345 15		
		734 41	
Fence, C. L. Weldon . . .		244 65	
Gravel, Joshua Stone . . .		1,796 75	
Hardware, tools and repairs, and supplies:—			
Ames Plow Co.	421 48		
Bigelow & Dowse	6 03		
Brock Bros.	103 16		
R. K. Carpenter	10 60		
Dodge, Haley & Co. . . .	419 84		
Albert Griffiths	7 50		
A. J. Jones	2 68		
James Maitland	39 78		
Osborn Mfg. Co.	12 50		
Geo. O. Rollins	55 55		
D. J. Sullivan	7 00		
F. A. White	20 44		
		1,106 56	
Harness and repairs:—			
James Forgie & Son . . .	66 05		
Hugh McCaffery	263 20		
Thomas McMahon . . .	84 60		
		413 85	
Hay and grain:—			
Otis S. Brown & Co. . . .	3 90		
A. W. Goodnow	2,977 64		
Wade & Reed Co. . . .	1,390 50		
Geo. G. Wright	9 60		
		4,381 64	
Horses, P. H. Dardis . . .		740 00	
Amounts carried forward . .		$42,149 32	$69,850 00

Amounts brought forward . .		$42,149 32	$69,850 00
For horse medicines:—			
A. R. Bayley & Co . . .	$1 00		
Walter Claflin	55		
Henry Thayer & Co. . .	11 25		
Rust & Richardson . . .	19 87		
		32 67	
Horse covers, W. H. Bustin & Son		6 00	
Horse shoeing, Wm. Balmer .		81 16	
Hoof stuffing, L. G. Stone . .		16 00	
Lumber, lime and cement:—			
Geo. W. Gale Lumber Co. .	202 64		
Geo. McQuesten & Co. . .	28 50		
N. N. Stickney	19 26		
Henry J. Winde	334 60		
Wm. H. Wood & Co. . .	11 22		
		596 22	
Machine, engine and iron work:—			
C. G. H. Bennink	10 15		
Broadway Iron Foundry .	14 34		
Edward Kendall & Sons . .	13 78		
Patrick Collins	1 79		
Farrell Foundry & Machine Co.	313 77		
Wm. H. Gallison	51 93		
Thomas Gannon	5 00		
Harrisburg Foundry & Machine Co.	290 20		
Miller & Shaw	261 07		
Roberts Iron Works . . .	28 34		
Scrannage Bros.	50		
A. J. Wellington	73 13		
		1,064 00	
Moving building, Angus & Mills		22 00	
Oil and paint:—			
Manufacturers' Oil Co. . .	123 18		
Rust & Richardson Drug Co.	50 89		
Standard Lubricating Co. .	5 00		
Standard Oil Co.	3 45		
Wadsworth, Howland & Co.	23 92		
		206 44	
Oatmeal, Geo. H. Cheever .		19 60	
Amounts carried forward . .		$44,193 41	$69,850 00

Amounts brought forward . .		$44,193 41	$69,850 00
For packing, belting and rubber goods:—			
Boston Belting Co.	$109 08		
Boston Woven Hose Co. . .	19 20		
Gould Packing Co.	11 04		
		139 32	
Pipe and cement, Portland Stone Ware Co.		81 45	
Painting, Eben Tucker . . .		5 25	
Sand, John F. O'Brien . . .		4 00	
Stone:—			
Frank W. Mead	2,407 87		
Mass. Broken Stone Co. . .	4,029 73		
Sundry persons	7,810 83		
		14,248 43	
Street sign, Eben Tucker . .		57 50	
Teaming, other than done by department:—			
P. Biggin	2 63		
James Boyle	362 50		
C. S. Brainard	105 00		
John J. Brassil	168 75		
Wm. Condon	61 25		
Elizabeth Cox	68 75		
J. T. Culhane	71 25		
Timothy A. Callahan. . . .	295 00		
Timothy Cosgrove	283 75		
Patrick Curley	113 75		
Patrick Dardis	240 00		
John A. Egan	67 50		
Jos. Finnick	111 25		
Emil Frederickson	65 00		
John Gallivan	351 25		
James Gray	442 50		
Wm. Hart	400 00		
Martin Kneeland	18 75		
Michael F. Lamb	7 50		
Chas. Linehan	186 25		
Chas. H. Linehan	276 25		
Edward Lynch	412 50		
Robert Leary	320 00		
Timothy Murphy	278 75		
Chas. McMahon	591 25		
Jas. P. McSorley	331 25		
Amounts carried forward	$5,632 63	$58,729 36	$69,850 00

Amounts brought forward . .	$5,632 63	$58,729 36	$69,850 00
Patrick McNamara	30 00		
Thomas McSorley	183 75		
Elizabeth Martell	357 50		
John McClellan	213 75		
Jeremiah McCrehan	351 25		
Thomas O'Hara	187 50		
Thomas H. O'Hara	248 75		
Timothy O'Keefe	52 50		
David O'Mara	391 25		
Michael O'Neil	261 25		
Michael O'Sullivan	358 75		
John Quinn	186 25		
John Quinn, Jr.	311 25		
John M. Riley	520 00		
Patrick Riley	228 75		
Patrick Riley, Jr.	273 75		
B. F. St. George	236 25		
Michael J. Shea	85 00		
Jeremiah Sullivan.	501 25		
Peter Tumilty	262 50		
Jos. F. White	67 50		
		10,941 38	
For use of horses, P. H. Dardis .		47 00	
Use of derrick, E. R. Cheney .		73 25	
Waste:—			
E. W. Bigelow & Co. . . .	18 45		
Frank E. Fitts Mfg. Co. . .	9 72		
		28 17	
Wiring for electric lights, Wm. H. Spiller		25 00	
Total			69,844 16
Balance unexpended . . .			$5 84

Street Department.

Front Street (Filling and Grading).

Appropriation	$2,395 21

EXPENDED.

For execution of court, Arthur J. Wellington	$2,395 21

Street Department.

Front Street (Extension).

Appropriation		$10,000 00
EXPENDED.		
For execution of court, Boston & Albany R. R. Co.		6,963 67
Balance unexpended . . .		$3,036 33

Street Department.

Huron St. (Extension).

Appropriation		$11,535 32
Transferred from:—		
Incidental Expenses	$500 00	
Street Dept., Maintenance . .	1,500 00	
		2,000 00
		$13,535 32
RECEIVED.		
For labor and materials, F. A. Kennedy	$1,302 00	
EXPENDED.		
For labor, as per pay-rolls . . .	$1,276 83	
Foreman, E. Osborn	15 00	
		$1,291 83
Teaming:—		
James Boyle	25 00	
Peter Burns	235 00	
John J. Brassill	110 00	
Patrick Curley	65 00	
T. A. Callaghan	125 00	
Patrick Dardis	180 00	
Joseph Finnick	100 00	
John Gallivan	142 50	
James Gray	85 00	
Edward Lynch	77 50	
Robert Leary	103 75	
Elizabeth Martell	130 00	
John McClellan	75 00	
N. J. McConologue	72 50	
Jeremiah McCrehan	71 25	
Michael O'Sullivan	102 50	
Amounts carried forward . . .	$1,700 00	$1,291 83 $13,535 32

Amounts brought forward . . .	$1,700 00	$1,291 83	$13,535 32
Patrick Riley	155 00		
John Quinn	88 75		
Robert T. Ross	95 00		
		2,038 75	
Ballast, M. O'Sullivan		81 25	
Land and damages:—			
Royal W. Stimson	2,226 70		
Morrill Wyman	723 00		
		2,949 70	
Pipe, Sewer Dept.		1 35	
Stone:—			
Frank W. Mead	1,307 81		
Mass. Broken Stone Co. . .	1,003 92		
		2,311 73	
Tools, Ames Plow Co.		16 80	
Total			8,691 41
Balance unexpended . . .			$4,843 91

Street Department.

Main Street, Widening.

Appropriation transferred from Incidental expenses	$841 40

EXPENDED.

For land, Mary A Southwick . .	$841 40

Street Department.

North Avenue, (Widening).

Appropriation	$2,021 80

EXPENDED.

For teaming:—			
Peter Burns	$65 00		
T. A. Callahan	150 00		
James Culhane	10 00		
T. J. Culhane	50 00		
Patrick Riley, Jr.	126 25		
		$401 25	
Execution of court, Salome Fischer		1,013 00	
Labor, as per pay rolls . . .		253 00	
Lumber, N. N. Stickney . . .		9 98	
Stone, Mass. Broken Stone Co.		302 46	
Total			1,979 69
Balance unexpended . .			$42 11

Street Department (Maintenance).

Appropriation			$40,000 00
Transferred to Street Dept., Collection of Ashes		$750 00	
Transferred to Street Dept., Construction and Repairs . .		20,850 00	
Transferred to Street Dept., Extension of Huron St. . . .		1,500 00	
Transferred to Street Dept., Paving Gore St.		6,000 00	
			29,100 00
			$10,900 00

RECEIVED.

For removing snow . .		$35 00	

EXPENDED

For salaries of:—				
Supt. E. H. Reed . .		$2,000 00		
Clerks, Geo. M. Clukas		1,238 50		
John R. Wilson .		386 00		
			3,624 50	
Office expenses:—				
Advertising, James Cox		35 96		
Binding, J. H. H. McNamee		2 50		
Carpentry, W. H. Norris		15 54		
Directories:—				
E. F. Hunt & Co.	$9 00			
Sampson, Murdock & Co.	5 00			
		14 00		
Electric Lamps, Geo. F. Dickson . . .		9 20		
Keys, C. L. Bradlee		1 25		
Map, Geo. H. Walker & Co.		7 00		
Amounts carried forward		$85 45	$3,624 50	$10,900 00

Amounts brought forward		$85 45	$3,624 50	$10,900 00
For stationery and printing:—				
W. M. Belcher & Co.	$5 75			
Cashman, Keating & Co. . .	11 75			
Cotton & Gould	140 60			
Jas. H. Cox . .	71 50			
Stationery Dept.	62 73			
		292 33		
Telephone rent and tolls, N. E. Tel. Co.		83 24		
			461 02	
Incidental expenses:—				
Carriage hire:—				
J. Callahan . . .	6 00			
Chas. W. Dailey .	16 00			
J. E. Fabyan . .	16 00			
H.K. Parsons & Co.	51 00			
M. J. Shea . . .	5 00			
Whiting & Smith .	5 00			
		99 00		
Car tickets, W. E. St. Railway Co. . . .		25 00		
Cash expended, E. H. Reed		9 75		
Damage to herdic, John T. Culhane .		2 50		
Disinfectant, Rust & Richardson Drug Co.		3 75		
Electric bells and connecting same, Inspection of Wires Dept.		15 00		
Expressage		15		
Furniture, Phillips Bros. & Co. . . .		16 00		
Hardware, tools and repairs:—				
C. L. Bradlee . .	1 65			
Brock Bros. . . .	2 42			
Moynahan & Co. .	9 98			
Daniel J. Sullivan .	5 60			
Amounts carried forward	$19 65	$171 15	$4,085 52	$10,900 00

Amounts brought forward	$19 65	$191 15	$4,085 52	$10,900 00
F. A. White . . .	11 30			
Whittier Hardware Co.	7 30			
		38 25		
For heating apparatus:				
Moynahan & Co. .	8 58			
A. M. Robbins . .	5 01			
Smith & Anthony .	37 05			
		50 64		
Lighting, Cambridge Elec. Light Co. .		242 38		
Lighting apparatus and supplies, Cambridge Elec. Light Co.		28 45		
Lumber and lime:—				
Geo. W. Gale Lumber Co.	84 79			
Sundry persons . .	1 70			
		86 49		
Plumbing, Moynahan & Co.		81 39		
Professional services, Dr. C. H. Thomas .		15 00		
Refreshments, M. R. Jones		21 00		
Removing night soil, W. B. Mullen . .		11 80		
Rent of wharf, Cambridge Gas Light Co.		275 00		
Repairs at crossing gates, Fitchburg R. R. Co.		10 10		
Rubber goods, Boston Woven Hose and Rubber Co. . . .		6 55		
Stone work, Austin Ford & Son . . .		13 50		
Supplies:—				
A. C. Curtis & Son	9 79			
Frank P. Merrill .	6 66			
		16 45		
Amounts carried forward		$1,068 15	$4,085 52	$10,900 00

Amounts brought forward		$1,068 15	$4,085 52	$10,900 00
For windows, Levi Boles & Son		3 50		
Wire guards, Morss & Whyte		31 25		
			$1,102 90	
For winter work:—				
Salaries of:—				
Sub-foreman, A. F. Miller	$227 50			
Sub-foreman, E. Osborne	217 50			
Laborers, as per payrolls	4,372 32			
		4,817 32		
Carpentry, Kelley & McKinnon		320 00		
Cordage, Sewall & Day Cordage Co.		11 19		
Hardware, tools and supplies:—				
Ames Plow Co.	8 28			
F. A. White	21 36			
Sundry persons	1 50			
		31 14		
Harness and repairs:—				
Jas. Forgie & Son	23 45			
Thos. McMahon	21 90			
		45 35		
Hay and grain:—				
A. W. Goodnow	355 77			
Geo. G. Wright	23 50			
		379 27		
Horse clipping, John Smith		3 00		
Horse medicine, Rust & Richardson Drug Co.		9 00		
Horse-shoeing, Wm. Balmer		28 29		
Lumber:—				
Geo. W. Gale Lumber Co.	4 27			
N. N. Stickney	8 31			
		12 58		
Machine and engine work, Geo. W. Tibbets		14 80		
Amounts carried forward		$5,671 94	$5,188 42	$10,900 00

Amounts brought forward	$5,671 94	$5,188 42	$10,900 00
For oil, Standard Oil Co.	2 88		
Paints and varnish, Wadsworth, Howland & Co.	10 44		
Salt, B. H. Warner	6 65		
Teaming, John Gallivan	2 50		
		5,694 41	
Total			10,882 83
Balance unexpended			$17 17

Street Department (Paving Cambridge Street.)

Appropriation			$7,650 00
Transferred from Sewers, Construction		$800 00	
Transferred from Sewers, Maintenance		1,500 00	
			2,300 00
			9,950 00
Transferred to Street Dept. Paving, Edgestone, and Sidewalks		200 00	
Transferred to Street Dept. Paving Gore Street		1,000 00	
			1,200 00
			$8,750 00

EXPENDED.

For salaries of:—			
Sub. foreman:—			
Chas. McHugh	$18 00		
John Reilley	108 00		
Martin L. Wixon	18 00		
Laborers, as per pay-rolls	6,274 26		
		6,418 26	
Bricks, M. W. Sands		193 32	
Flagging, Austin Ford & Son		857 02	
Gravel, Chas. Linehan		489 10	
Teaming:—			
Wm. Condon	133 75		
James Culhane	108 75		
John A. Egan	68 75		
Emil Fredrickson	50 00		
Wm. Hart	108 75		
Amounts carried forward	$470 00	$7,957 70	$8,750 00

Amounts brought forward . .	$470 00	$7,957 70	$8,750 00
Chas. Linehan	131 25		
Chas. H. Linehan	121 25		
Timothy Murphy	20 00		
Thos. H. O'Hara	20 00		
B. F. St. George	28 75		
		791 25	
Total			8,748 95
Balance unexpended . . .			$1 05

Street Department (Paving Gore Street).

Transferred from Street Dept:—			
Maintenance			$4,000 00
Paving Cambridge Street . . .			1,000 00
Paving Western Avenue . . .			1,000 00
Construction and Repairs . . .			4,000 00
			$10,000 00

EXPENDED.

For salaries of:—			
Sub-foreman, Martin L. Wixon .	$18 00		
Laborers, as per pay-rolls . .	3,074 94		
		$3,092 94	
Granite paving blocks, S. & R. J. Lombard		5,898 75	
Gravel, Charles Linehan . . .		354 05	
Teaming:—			
Wm. Condon	165 00		
John A. Egan	160 00		
Patrick Finnerly	106 25		
Emil Fredrickson	106 25		
Michael J. Shea	116 25		
		653 75	
Total			9,999 49
Balance unexpended . .			$0 51

Street Department, Paving Western Avenue.

Appropriation	$12,000 00
Transferred to Street Department Paving Gore street	1,000 00
Amount carried forward . . .	$11,000 00

Amount brought forward . . .			$11,000 00

EXPENDED.

For salaries of:—			
Sub-foreman, Chas. McHugh .	$72 00		
Sub-foreman, John Reilley . .	36 00		
Laborers, as per pay-rolls . .	3,456 38		
		$3,564 38	
Sand, Chas. McMahon		123 00	
Stone:—			
Austin Ford & Son	854 29		
S. & R. J. Lombard	5,968 41		
		6,822 70	
Teaming:—			
John A. Egan	116 25		
Chas. Linehan	27 50		
Chas. H. Linehan	42 50		
J. P. McSorley	120 00		
John Quinn, Jr.	30 00		
Michael J. Shea	32 50		
B. F. St. George	57 50		
Peter Tumilty	20 00		
		446 25	
			$10,956 33
Total			$43 67

Street Department, Paving.

(Edgestones and Sidewalks.)

Appropriation			$27,500 00
Transferred from:—			
Sewers, Maintenance . . .	$1,000 00		
Street Dept. Paving Cambridge Street	200 00		
			1,200 00
			$28,700 00

RECEIVED.

For labor and materials		706 99	
Sidewalk assessments		16,095 31	
		16,802 30	
Amount carried forward . . .			$28,700 00

Amount brought forward . .			$28,700 00
EXPENDED.			
For labor as per pay-rolls . . .	$15,575 61		
Sub-formen, Charles McHugh .	18 00		
John Reilly	36 00		
Martin L. Wixon	180 00		
		$15,809 61	
Bricks, M. W. Sands		3,060 98	
Cement, Geo. W. Gale, Lumber Co.		10 00	
Cord and line, B. R. Ware & Co.		22 76	
Cordage, Sewell & Day Cordage Co.		15 06	
Cutting paving blocks, Thos. Walsh		57 23	
Gravel:—			
Charles Linehan	620 50		
I. W. McArthur	25 00		
		645 50	
Hardware, tools and repairs:—			
Ames Plow Co.	33 56		
Jos. Breck & Sons	38 00		
Wm. A. Bertsch	60		
Bigelow & Dowse	3 60		
H. H. Harvey	6 99		
John W. Harmon	5 75		
Wight & Scorgie	15 55		
F. A. White	7 74		
Whittier Hardware Co. . . .	2 00		
Geo. O. Rollins	25 34		
		139 13	
Lumber and Cement, Geo. W. Gale Lumber Co.		36 92	
Oatmeal, Geo. H. Cheever . .		19 60	
Oil, Standard Oil Co.		48 89	
Sand screen, Morss & Whyte .		7 50	
Stone:—			
Austin Ford & Son	6,575 21		
James Hughes	195 30		
P. O'Riorden	50 89		
Wight & Scorgie	20 35		
W. E. Street Railway Co. . .	47 08		
		6,888 83	
Amounts carried forward . .		$26,762 01	$28,700 00

Amounts brought forward . .		$26,762 01	$28,700 00
For teaming:—			
Peter Burns	$108 75		
Patrick J. Curley	236 25		
Wm. Condon	95 00		
Elizabeth Cox	77 50		
James Culhane	70 00		
Patrick H. Dardis	206 25		
John A. Egan	117 50		
Joseph Finnick	152 50		
Patrick Finnerly	65 00		
John Gallivan	96 25		
Chas. Linehan	113 75		
Michael O'Neil	115 00		
John Quinn	182 50		
John M. Riley	78 75		
Patrick Riley	26 25		
Patrick Riley, Jr.	46 25		
Peter Tumilty	147 50		
		1,935 00	
Total			28,697 01
Balance unexpended . .			$2 99

Street Department (Shade Trees and Public Grounds).

Appropriation			$7,000 00
RECEIVED.			
For chopping blocks		$14 75	
Labor and materials		25 10	
Old lawn mower		1 50	
Trimming trees		3 00	
		$44 35	
EXPENDED.			
For salary of city forester, James Doherty	$927 03		
Assistant foreman, John Donnelly	784 37		
Labor, as per pay-rolls . . .	4,573 96		
		6,285 36	
Hardware, tools, etc.:—			
Ames Plow Co.	19 39		
Dodge, Haley & Co. . . .	3 60		
Amounts carried forward . . .	$22 99	$6,285 36	$7,000 00

Amounts brought forward . .	$22 99	$6,285 36	$7,000 00
Fitz, Dana & Co.	78		
Osborn Mfg. Co.	3 50		
F. A. White	8 85		
		36 12	
For hose, Boston Woven Hose Co.		39 00	
Hay and grain, Otis S. Brown & Co.		45 75	
Lumber, Geo. W. Gale Lumber Co.		9 00	
Loam, Thomas O'Hara . . .		8 00	
Rigging, David Cass		30 00	
Rope, Sewell & Day Cordage Co.		7 30	
Wagon, Chas. Waugh & Co. .		175 00	
Seeds and plants:—			
R. & J. Farquhar & Co. . .	87 40		
P. O. Brien & Son	115 00		
		202 40	
Signs, Eben Tucker		18 75	
Sods, Jeremiah Sullivan . . .		10 54	
Trees, Shady Hill Nurseries . .		85 50	
Total			6,952 72
Balance unexpended . .			$47 28

Street Department (Watering).

Appropriation		$21,000 00
Surplus Revenue		1,031 65
		$22,031 65

RECEIVED.

From sundry persons, for sprinkling streets	$15,031 65	

EXPENDED.

For salary of foreman:—			
A. F. Miller	$782 00		
Labor as per pay-roll	1,535 26		
		2,317 26	
Advertising, James Cox . .		14 31	
Brushes, A. Worcester & Son		18 62	
Castings, Broadway Iron Foundry		8 28	
Collecting assessments, Francis A. Cox		40 00	
Fuel, H. G. Jordan & Co. . .		8 00	
Amounts carried forward . . .		$2,406 47	$22,031 65

Amounts brought forward . .		$2,406 47	$22,031 65
For hardware, tools, etc.:—			
Dodge, Haley & Co. . . .	$14 49		
F. A. White	1 07		
		15 56	
Hose, Boston Woven Hose Co.		37 67	
Lettering, E. Tucker		5 00	
Lumber:—			
Geo. W. Gale Lumber Co. .	10 15		
Henry J. Winde	155 96		
		166 11	
Oakum, J. Baker & Co. . . .		4 50	
Paints, oil, varnish, etc.:—			
Wadsworth, Howland & Co.	15 70		
F. A. White	9 49		
		25 19	
Packing, Wm. H. Gallison . .		1 20	
Rebate on bill, Chas. Harris .		7 75	
Repairing sprinkler, Bay State Metal Works, ...		8 40	
Rubber Boots, American Rubber Co.		3 72	
Sprinkling carts, Abbot Downing Co.		1,300 00	
Sprinkling attachments, J. L. & H. K. Potter		21 20	
Stationery and printing, James H. Cox		9 25	
Sprinkling streets:—			
Chas. Anderson	524 70		
John F. Coolidge	505 80		
Frank J. Coulter	902 70		
James Coyle	780 30		
John F. Cawley	299 25		
Elizabeth Cox	485 10		
John J. Donahue	1,242 90		
Patrick H. Dardis	494 10		
John Doody	963 45		
Robert Fawcett	484 65		
J. J. Fitzgerald	503 10		
Emil Frederickson	877 95		
Richard Martell	369 00		
N. J. McConologue	552 15		
Thos. McDermott	817 20		
Chas. McMahon	911 25		
Thos. McSorely	1,028 25		
Amounts carried forward . .	$11,741 85	$4,012 02	$22,031 65

Amounts brought forward . .	$11,741 85	$4,012 02	$22,031 65
Jas. E. Morse	543 60		
Robert G. Nixon	748 80		
Timothy O'Keefe	540 45		
David O'Mara	519 75		
Thos. H. O'Hara	121 95		
Thos. O'Hara	332 55		
Michael J. Shea	869 85		
Barry F. St. George	543 60		
Peter Tumilty, Jr.	981 90		
Jos. F. White and heirs . .	898 20		
		17,842 50	
For use of horse, P. H. Dardis .		107 00	
Wagon repairs:—			
Geo. Patterson	15 10		
Chas. Waugh & Co. . . .	12 70		
		27 80	
Total			21,989 32
Balance unexpended . . .			$42 33

Treasury Department.

Appropriation			$12,500 00
RECEIVED.			
For collector's fees		$1,664 91	
EXPENDED.			
For salaries of:—			
City treasurer, Wm. W. Dallinger	$3,000 00		
Clerks:—			
E. G. Stevens	1,408 50		
E. J. Howlett	1,043 34		
C. H. Dodge	939 00		
J. H. Webber	1,029 84		
Temporary clerks	858 06		
		8,278 74	
Advertising, James Cox . . .		168 18	
Car tickets, W. E. Street Railway Co.		15 00	
Carriage hire, M. J. Fairbanks .		387 00	
Carpentry, W. H. Norris . . .		5 61	
Amounts carried forward . .		$8,854 53	$12,500 00

Amounts brought forward . .		$8,854 53	$12,500 00
For commission for collecting taxes:			
Joseph Fox	550 22		
Warren Ivers	890 87		
Frank H. Lull	106 90		
		1,547 99	
Directories:—			
E. F. Hunt & Co.	3 00		
W. A. Greenough & Co. .	2 00		
Sampson, Murdock & Co. .	5 00		
		10 00	
Lock on safe door, Damon Safe & Iron Works		36 60	
Recording deeds, Charles B. Stevens		23 46	
Sharpening erasers, C. L. Bradlee.		50	
Stationery, printing and postage:—			
American Bank Note Co. .	15 00		
Cotton & Gould	167 99		
Jas. H. Cox	85 50		
Cashman, Keating & Co. .	6 57		
W. W. Dallinger . . .	12 62		
John Ford & Son . . .	37 25		
Harvard Printing Co. . .	82 75		
L. W. Poole	7 50		
G. W. Ring	1,024 40		
Stationery Department . .	39 34		
L. F. Weston	60 00		
		1,538 92	
Subscription, W. Dickerman .		3 00	
Telephone rent, N. E. Telephone Co.		135 00	
Waste Basket, F. A. White .		4 00	
Weston motor, Pettingell-Andrews Co.		25 00	
Total			12,179 00
Balance unexpended . . .			$321 00

Water Works (Construction).

Appropriation			$45,000 00
Revenue appropriated		$4,754 19	
Transferred from Fresh Pond Land Account		130 83	
			4,885 02
			$49,885 02

RECEIVED.

For sale of:—		
Buildings	$2,556 00	
Hay	125 00	
Old iron	408 19	
Premium on bonds	1,665 00	
	$4,754 19	

EXPENDED.

For labor as per pay-rolls:—			
Sundry persons	$9,985 00		
Boston & Albany R. R. Co.	5 00		
Boston & Maine R. R. Co.	4 90		
Fitchburg R. R. Co.	57 75		
		$10,052 65	
Advertising contracts		79 96	
Building house and stable, J. H. Keenan		5,500 00	
Carpentry, Kelly & McKinnon		89 01	
Castings, fittings and hydrants:—			
Barbour, Stockwell & Co.	357 50		
Builders' Iron Foundry	76 80		
Chapman Valve Mfg. Co.	4,532 49		
Davis & Farnum Mfg. Co.	129 48		
Anthony B. Smith	266 00		
Walworth Mfg. Co.	542 18		
		5,904 45	
Commission as auctioneer, P. Allen Lindsey		69 49	
Drinking fountain:—			
Alex. McDonald & Son	17 00		
J. L. Mott Iron Works	90 00		
		107 00	
Amounts carried forward		$21 802 56	$49,885 02

Amounts brought forward .		$21,802 56	$49,885 02
For fuel, Richardson & Bacon .		6 00	
Grass seed, R. & J. Farquhar & Co.		4 25	
Hardware, tools, etc.:—			
Burditt & Bynner . . .	$36 00		
Perrin, Seamans & Co. .	4 00		
		40 00	
Lead, Chadwick Lead Works		1,690 07	
Lumber, lime and cement, Geo. W. Gale Lumber Co.		257 89	
Lunches for men:—			
A. T. Hunter	60 00		
W. H. Tuck	19 00		
		79 00	
Mason work, Leach & Grant Co.		40 30	
Meters:—			
Buffalo Meter Co. . . .	8 00		
Union Water Meter Co. .	667 00		
H. K. Worthington . . .	100 00		
		775 00	
Paving, H. T. Soper . . .		468 71	
Paving blocks, H. Gore & Co.		33 00	
Packing:—			
S. C. Nightingale & Childs	44 80		
Perrin, Seamans & Co. . .	23 18		
		67 98	
Paint, F. A. White		8 13	
Painting, J. L. P. Ackers .		60 00	
Pipe and fittings, Warren Foundry and Machine Co.		17,061 86	
Pumping engine, George F. Blake Mfg. Co.		5,874 00	
Printing:—			
American Bank Note Co.	90 00		
Harvard Printing Co. . .	18 35		
		108 35	
Teaming, Peter Tumilty . .		568 00	
Tolls, N. E. Telephone Co.		3 20	
Traveling expenses, Hiram Nevons		4 75	
Typewriting, Mary E. Rowen		3 00	
Use of horse and wagon, Whiting & Smith . . .		3 00	
Use of locomotive and cars, Fitchburg Railway Co. . .		925 97	
Total			$49,885 02

Water Works, Construction, "Fresh Pond Land."

Appropriation			$84,604 74
Revenue appropriated . . .			1,255 00
			85,859 74
Transferred to General Construction Account . . .		$130 83	
Transferred to Fresh Pond Reservoir Account . . .		6,509 94	
			6,640 77
			$79,218 97
RECEIVED.			
For premium on bonds . . .		$1,255 00	
EXPENDED.			
For Appraising, J. H. Keenan .	$25 00		
T. J. O'Reilly .	30 00		
		$55 00	
Building abutments to Huron St. Bridge, Rowe & Hall .		1,116 32	
Carriage hire, M. J. Fairbanks		4 00	
Examination of titles:—			
Estate of Chas. G. Pope .	10 00		
Wm. V. Thompson . . .	150 00		
		160 00	
Land and damages:—			
Daniel J. Griffin	1,466 60		
Lee & Mantor, Trustees .	1,801 20		
Richard Powers	2,000 00		
Roderick W. Rogers . . .	4,000 00		
Thomas O'Connor . . .	1,950 00		
John E. Somers	46,800 00		
		58,017 80	
Services of experts in land and damage cases:—			
T. F. Black	5 00		
W. G. Cutter	50 00		
Millard Fillmore . . .	20 00		
R. A. Jones	10 00		
John McSorley	50 00		
R. T. Ross	25 00		
Chas. H. Saunders . .	20 00		
		180 00	
Services of City Solicitor, City of Cambridge		1,500 00	
Serving notices, F. E. Shaw .		5 25	
Total			61,038 37
Balance unexpended .			$18,180 60

Water Works, Construction, (Fresh Pond Reservoir).

Appropriated			$65,000 00
Additional appropriation . .			15,000 00
Revenue appropriated . . .			300 00
Transferred from Fresh Pond Land Account			6,509 94
			$86,809 94
RECEIVED.			
For premium on bonds . . .		$300 00	
EXPENDED.			
For labor as per pay-rolls . .		$38,994 16	
Advertising:—			
Boston Herald Co. . . .	$3 25		
James Cox	1 32		
Engineering record . . .	28 00		
		32 57	
Ballast, Street Dept. . . .		28 50	
Bridge, The Massillon Bridge Co.		4,125 00	
Constructing Huron Street Bridge, R. F. Hawkins . .		6,542 00	
Carpentry, Kelley & McKinnon		46 44	
Expressage		30	
Fresh Pond Av. Bridge abutments, Wight & Scorgie .		2,184 00	
Gravel, Street Dept. . . .		22 00	
Inspecting materials, Huron St. Bridge, G. M. G. Ferris		29 02	
Inspecting material for Fresh Pond Ave. Bridge, Pittsburg Testing Laboratory .		26 33	
Labor		67 02	
Loam, Doody, Curley & Callaghan		15,077 54	
Lumber, Geo. W. Gale Lumber Co.		46 20	
Paving, H. T. Soper . . .		27 50	
Printing, Harvard Printing Co.		18 35	
Amounts carried forward .		$67,266 93	$86,809 94

Amounts brought forward .		$67,266 93	$86,809 94
For stone:—			
Alex. McDonald & Son .	$66 50		
J. Galvin	142 83		
J. McCrehan	152 00		
Mass. Broken Stone Co. .	2,986 21		
John M. Riley	58 97		
		3,406 51	
Sundries:—			
R. & J. Farquhar & Co. .	52 20		
H. M. Grant	28 60		
George Nevons	5 00		
A. M. Robbins	5 00		
		90 80	
Teaming:—			
Edward Ayer	12 00		
John J. Brassil	140 00		
James Boyle	926 25		
Peter Burns	219 50		
Chas. Conlan	680 25		
Timothy Cosgrove . . .	240 00		
P. J. Curley	1,247 50		
Timothy A. Callahan . .	290 00		
P. H. Dardis	625 00		
Edward Eager	71 25		
Jos. Finnick	173 75		
John Gallivan	190 75		
James Gray	141 25		
Frank Gray	48 00		
Frank F. Green	57 75		
Wm. Hart	56 25		
Martin Kneeland . . .	42 50		
Edward Lynch	123 75		
David Landergan . . .	482 25		
John Lynch	45 75		
Elizabeth Martell . . .	97 50		
Martin McDonald . . .	652 50		
John McClellan	148 75		
Michael Murphy	219 75		
Jeremiah McCrehan . .	21 25		
Elizabeth McCrehan . .	40 00		
J. W. O'Connor	504 75		
Michael O'Sullivan . .	507 65		
Amounts carried forward .	$8,005 90	$70,764 24	$86,809 94

Amounts brought forward .	$8,005 90	$70,764 24	$86,809 94
T. H. O'Hara	188 75		
Joseph Phenix	64 50		
Robert T. Ross	181 25		
Patrick Riley	92 50		
John Riley	364 25		
Patrick Riley, Jr. . . .	108 75		
Dennis Shea	126 75		
Michael Sullivan	20 25		
Jeremiah Sullivan . . .	162 50		
Peter Tumilty	240 00		
		9,555 40	
For teaming and materials, M. O'Sullivan		226 34	
Tools and repairs:—			
Chapman Carriage Co. .	2 03		
Perrin, Seamans & Co. .	3 10		
G. O. Rollins	15 53		
Sherburne & Co. . . .	22 80		
		43 46	
Ties, Fitchburg R. R. Co. .		52 50	
Use of locomotive and cars, Fitchburg R. R. Co. . .		6,068 00	
Use of steam roller, Street Department		100 00	
Total			$86,809 94

Water Works, Construction, (Payson Park Reservoir).

Appropriation			$40,000 00
Revenue appropriated . . .			1,480 00
			$41,480 00
RECEIVED.			
For premium on bonds . . .		$1,480 00	
EXPENDED.			
For carriage hire, M. J. Fairbanks		7 00	
Land and damages:—			
Thomas D. Blake . . .	$3,703 35		
Payson Park Land Co. . .	32,000 00		
		35,703 35	
Amounts carried forward .		$35,710 35	$41,480 00

Amounts brought forward . .	$35,710 35	$41,480 00
For recording deeds, Charles B. Stevens	3 63	
Valuation of property, John McDonald & Son	20 00	
Total		35,733 98
Balance unexpended . .		$5,746 02

Water Works, Construction, (Stony Brook Water Supply).

Appropriation		$3,854 70

EXPENDED.

For ice guard, John P. Perkins & Co.	$1,150 59	
Labor, Dennis Connelly . .	6 00	
Leaf screen, Morss & Whyte	298 28	
Professional services, N. Henry Crafts	526 40	
Teaming, Peter Tumilty .	9 00	
Wagon repairs, Thomas Evans	3 00	
Total		$1,993 27
Balance unexpended . .		$1,861 43

Interest on Water Loan.

Appropriation		$80,000 00
Revenue appropriated . . .		644 45
		$80,644 45
Transferred to Water Works, Maintenance	$937 27	
Transferred to Water Works, R. F. etc., Refunds . . .	187 34	
		1,124 61
		$79,519 84

RECEIVED.

For accrued interest on bonds .	$644 45

EXPENDED.

For Interest on Water Debt:—		
Coupons, ...	$59,790 00	
Registered	18,135 00	
Total		77,925 00
Balance unexpended .		$1,594 84

Water Works, (Maintenance).

Appropriation			$46,000 00
Revenue appropriated . . .			218 80
Transferred from Interest on Water Loan			937 27
			$47,156 07

RECEIVED.

For sale:—		
Gravel	$193 80	
Apples	25 00	
		$218 80

EXPENDED.

For salaries:—		
Supt., Hiram Nevons . .	$2,347 50	
Asst. Supt., John L. Harrington	1,305 35	
Engineer, E. C. Brooks .	1,499 10	
Asst. Engineer, Wm. Blaisdell	1,042 85	
Registrar and clerk, W. H. Harding	2,200 00	
Office clerk, Harry L. Lincoln	1,000 00	
Clerk, Hattie F. Milligan .	626 90	
Inspector, F. G. Davis . .	900 00	
Mechanic, B. P. Doe . .	886 13	
Foreman, Patrick Conlan .	764 50	
Gateman, Silas Baxter . .	599 64	
Treasurer of Sinking Fund of Water Works, Wm. W. Dallinger	200 00	
Laborers, as per pay-rolls .	15,438 13	
		28,809 20
Advertising:—		
Boston Herald Co. . . .	1 88	
James Cox	12 77	
Cambridge Chronicle Co. .	3 50	
		18 15
Bricks, lime and cement:—		
G. F. Frost	67 03	
Parry Bros. & Co. . . .	18 00	
		85 03
Amounts carried forward .		$28,912 38 $47,156 07

Amounts brought forward .		$28,912 38	$47,156 07
For carpentry:—			
W. Fillmore & Co. . . .	$2 45		
Kelley & McKinnon . .	563 58		
		566 03	
Carriage and wagon repairs:—			
Thomas Evans	20 65		
A. J. Jones	3 80		
Hugh Stewart & Co. . .	501 25		
		525 70	
Car tickets:—			
Fitchburg R. R. Co. . .	111 68		
W. E. St. Railway Co. . .	275 00		
		386 68	
Copper waste, Samuel Kidder		22 86	
Damages, Henry Gallishan .		10 00	
Directories:—			
W. A. Greenough . . .	2 00		
E. F. Hunt & Co. . . .	3 00		
		5 00	
Expenses of switch and track, Fitchburg R. R. Co. . .		22 20	
Expenses to Milwaukee and return, Hiram Nevons . .		77 00	
Expenses of Water Board at Inspections:—			
Carriage hire	317 00		
Cigars	45 25		
Printing	17 75		
Refreshments	165 05		
		545 05	
Expressage:—			
Abbott & Son	30		
American Express Co. . .	50		
Butland & Son	60		
Hatch & Co.	18 00		
Savage & Son	58 21		
		77 61	
Furniture:—			
Derby & Kilmer Desk Co.	71 00		
Phillips Bros. & Co. . .	2 00		
		73 00	
Amounts carried forward .		$31,223 51	$47,156 07

Amounts brought forward .		$31,223 51	$47,156 07
For fuel and cement:—			
Coleman Bros.	$31 25		
G. F. Frost	53 04		
Richardson & Bacon . .	5,213 24		
		5,297 53	
Gas, Cambridge Gas Light Co.		42 23	
Gravel:—			
Peter Tumilty	3 00		
Street Dept.	3 00		
		6 00	
Hardware, tools, machinery and repairs:—			
Ames Plow Co.	60 03		
Barbour, Stockwell & Co.	36 16		
Burditt & Bynner . . .	421 30		
Boston Bolt Co.	2 16		
E. L. Bradlee	5 70		
Brock Bros.	60		
Geo. F. Blake Mfg. Co. .	139 72		
Chapman Valve Mfg. Co.	80 89		
Wm. Campbell & Co. . .	4 75		
Dodge, Haley & Co. . .	1 98		
Thomas Evans	2 00		
Chas. H. Goldsmith . . .	8 40		
Green & Co.	13 51		
S. C. Higgins	117 15		
Hill, Clarke & Co. . . .	2 50		
James Maitland	542 15		
J. L. Mott Iron Works . .	22 90		
Perrin, Seamans & Co. . .	20 70		
C. M. Richardson . . .	19 17		
F. A. White	101 33		
The Geo. Woodman Co. .	17 04		
Walworth Mfg. Co. . . .	367 05		
		1,987 19	
Harness and repairs, M. Cavanagh		188 00	
Hay, grain and straw:—			
J. Cushing & Co. . . .	558 91		
Coleman Bros.	75		
Patrick Glennon	17 04		
		576 70	
Horse clipping, John Smith .		3 00	
Amounts carried forward .		$39,324 16	$47,156 07

Amount brought forward . .		$39,324 16	$47,156 07
For horse shoeing:—			
Wm. Bell	$8 00		
John F. Gurry	71 21		
Wm. F. Garrett & Co. . .	18 83		
Thomas Smith	146 45		
		244 49	
Horses exchanged:—			
F. D. Bartlett	100 00		
P. H. Dardis	160 00		
Russell & Drew	175 00		
		435 00	
Hose:—			
Boston Woven Hose Co. .	73 95		
Smith & Winchester . .	51 00		
		124 95	
Inspection of house on premises of S's of St. Joseph, J. H. Keenan		8 25	
Lumber:—			
Buttrick Lumber Co. . .	121 54		
Geo. W. Gale Lumber Co.	432 25		
Wm. H. Wood & Co. . .	14 51		
		568 30	
Ice, Fresh Pond Ice Co. . .		5 00	
Labor, Silas Baxter . . .		9 50	
Lamps, shades and electric supplies:—			
F. Bryant & Co. . . .	13 15		
Pettingill-Andrews Co. .	58 32		
		71 47	
Labor on dam at Sixth St. Bridge, John P. Perkins & Son		95 00	
Lunches for employees:—			
Chas. W. Crossman . . .	2 08		
M. R. Jones	8 00		
Shaw & Corey	3 55		
S. White	1 10		
		14 73	
Manure, A. T. Brown . . .		10 00	
Magnesia covering, S. C. Nightingale & Childs . .		31 69	
Amounts carried forward .		$40,942 54	$47,156 07

Amounts brought forward . .		$40,942 54	$47,156 07
For mason work:—			
Wm. J. Heron	$56 10		
T. J. O'Reilly	275 56		
Thomas Stankard . . .	106 50		
		438 16	
Medicine, A. R. Bayley & Co.		5 25	
Meters and repairs:—			
Hersey Mfg. Co.	19 62		
National Meter Co. . . .	4 35		
Union Water Meter Co. .	49 44		
Henry R. Worthington . .	31 26		
		104 67	
Newspapers:—			
F. L. Beunke	6 00		
James Cox	2 00		
Cambridge Chronicle Co. .	2 50		
Engineering Record . . .	5 00		
Fire and Water	3 00		
		18 50	
Oil:—			
E. W. Bigelow & Co. . .	127 00		
Standard Oil Co.	8 68		
		135 68	
Outlet to catch basin, City of Cambridge, Sewer Dept. .		9 00	
Packing, valves and hose:—			
Boston Woven Hose Co. .	126 13		
Wm. B. Merrill & Co. . .	13 27		
S. C. Nightingale & Childs	9 10		
		148 50	
Painting and glazing:—			
J. L. P. Ackers	235 29		
J. H. & J. P. Thayer & Co.	1 50		
		236 79	
Paper hanging, Charles Atkins		18 93	
Photos., Pach Bros. . . .		3 75	
Pig-pen		100 00	
Pipe:—			
Geo. F. Blake Mfg. Co. .	60		
Levi Hawkes	5 88		
D. W. Lewis	29 43		
		35 91	
Amounts carried forward . .		$42,197 68	$47,156 07

Amounts brought forward . .		$42,197 68	$47,156 07
For pipe bridge, Mt. Auburn st., M. N. Stearns		616 00	
Plans, specifications, etc.:—			
George Fogarty	219 00		
D. H. Webber	30 00		
		249 00	
Plumbing:—			
Brock Bros.	36 13		
Levi Hawkes & Co. . .	85 57		
		121 70	
Plugs and mallets, H. A. Scranton		34 65	
Rent of box, Cambridge Safety Vaults Co. . . .		20 00	
Rent of office and shop, Public Property Department .		2,000 00	
Roofing, John J. Blevins .		45 84	
Rubber boots, H. Sleap & Co.		14 50	
Services as auctioneer, P. A. Lindsey.		16 25	
Services of driver, Geo. W. Townsend		27 00	
Stationery, printing and postage:—			
Cashman, Keating & Co. .	22 95		
James H. Cox	32 20		
Cotton & Gould	44 25		
Wm. W. Dallinger . . .	4 00		
Francis Doane, Tr. . . .	17 30		
John Ford & Son	39 00		
Walker, Young & Co. . .	118 75		
Winkler, Dresser & Co. .	108 38		
		386 83	
Sanitary services, Dr. F. W. Jackson		25 00	
Sealing, Sealer of Weights and Measures		7 50	
Storage, E. W. Hincks . .		60 00	
Stone work, Alex. McDonald & Son		89 50	
Sundry supplies:—			
H. S. Andros	4 50		
Camb. Elec. Light. Co. .	2 25		
Amounts carried forward .	$6 75	$45,911, 45	$47,156 07

Amounts brought forward .	$6 75	$45,911 45	$47,156 07
J. A. Holmes & Co. . .	52 27		
Frost & Adams	3 44		
R. & J. Farquhar & Co. .	39 70		
John Reardon & Sons . .	1 14		
Wm. Read & Sons . . .	2 00		
A. M. Robbins	90		
		106 20	
Travelling expenses, Hiram Nevons		6 88	
Type-writing:—			
F. J. Olsson	2 75		
Chas. H. Thurston . . .	2 75		
		5 50	
Telephone rent and tolls, N. E. Tel. Co.		436 04	
Testing Pipes, Inspection of Wires		250 00	
Teaming:—			
P. J. Curley	18 00		
W. E. Kingsbury	5 00		
Thomas O'Hara	5 00		
Peter Tumilty	266 50		
		294 50	
Use of stoves, A. M. Robbins		6 00	
Use of horse and wagon, F. D. Bartlett		65 50	
Use of saddle horse, Whiting & Smith		54 00	
Wedges, M. E. Rideout . .		20 00	
Total			$47,156 0

Water Works, Rates, Fines, etc.

RECEIVED.

From sundry persons for water rates, fines, etc.	$248,347 20

EXPENDED.

For Construction of Fresh Pond Reservoir	$60,000 00	
Interest on water debt . . .	77,280 55	
Maintenance of Water Works	46,937 27	
Rates, Fines, etc., Abatements	3,131 65	
Rates, Fines, etc., Refunds .	1,687 34	
Sinking Fund Requirements .	59,310 39	
		248,347 20

Water Works, Rates, Fines, etc., (Abatements).

Appropriation		$3,500 00
EXPENDED.		
For abatements allowed on water rates to sundry persons		3,131 65
Balance unexpended . .		$368 35

Water Works, Rates, Fines, etc., (Refunds).

Appropriation		$1,500 00
Transferred from Interest on Water Loan		187 34
		$1,687 34
EXPENDED.		
For water rates refunded to sundry persons		$1,687 34

Water Works (Sinking Fund).

Appropriation		$59,902 50
Surplus receipts of Water Works		454 67
		$60,357 17
Paid to Trustees of Sinking Fund of Water Works		60,357 17

Water Works (Supplies).

Appropriation			$7,000 00
RECEIVED.			
For supply pipes, etc. . . .		$6,175 09	
EXPENDED			
For labor as per pay-rolls . .		2,446 00	
Pipes and fittings:—			
Chapman Valve Mfg. Co. .	$762 64		
Walworth Mfg. Co. . . .	1,914 22		
		2,676 86	
Total			5,122 86
Balance unexpended			$1.871 74

Water Works (Supplies, Abatements).

Appropriation	$100 00
EXPENDED.	
For abatements allowed on supplies	5 45
Balance unexpended .	$94 55

Cambridge Water Works, in account with the City of Cambridge for the year ending November 30, 1893:—

Receipts and Expenditures.

Balance in the City Treasury to the credit of the Water Works, November 30, 1892	$38,459 44	Expended on General Construction	$49,885 02
Received from sale of bonds	150,000 00	Fresh Pond Land Account	61,038 37
Premiums, accrued interest, etc	5,344 45	Fresh Pond Reservoir Account	86,809 94
Sale of Buildings, etc	3,089 19	Payson Park Reservoir Account	35,733 98
Revenue from Maintenance Account	218 80	Stony Brook Account	1,993 27
Revenue from Rates, Fines, etc	248,347 20	Interest on Water Debt	77,925 00
Revenue from Supplies	6,175 09	Maintenance Account	47,156 07
		Sinking Funds	60,357 17
		Rates, Fines, Abatements	3,131 75
		Rates, Fines, Refunds	1,687 34
		Supplies	5,122 86
		Supply Abatements	5 45
		Balance carried forward	20,788 05
	$451,634 17		$451,634 17

Recapitulation.

City Department Accounts.	Receipts.	Appropriations.	Expended.	Balances Unexpen'd
Assessors' Department		$11,000 00	$10,922 58	$77 42
Auditing Department		3,500 00	3,445 86	54 14
Bridge Department	$752 68	12,400 00	12,032 30	367 70
Cemetery Department:—				
Current Expenses	20,302 46	16,787 18	16,749 77	37 41
New Gateway and Fence		2,712 82	2,712 82	
City Clerk Department	2,443 67	5,978 12	5,978 12	
City Messenger Department		2,600 00	2,525 96	74 04
Civil Service Department		250 00	240 50	9 50
Clerk of Committees' Department		3,526 06	3,526 06	
Election Expenses:—				
City Clerk		7,000 00	6,804 85	195 15
Registrars of Voters		4 000 00	3,640 29	359 71
Superintendent of Public Buildings		1,600 00	1,599 74	26
Engineering Department		10,500 00	9,644 00	856 00
Executive Department		4,700 00	4,641 04	58 96
Fire Department	149 77	62,000 00	61,627 27	372 73
Health Department		5,475 37	5,475 37	
Incidental Expenses	1,070 06	10,973 89	10,847 07	126 82
Park Commissioners		500 00	339 13	160 87
Inspection of Milk and Vinegar Dep't	145 00	1,300 00	1,298 76	1 24
Inspection and Supervision of Electric Wires Department	1,813 74	10,013 74	9,545 07	468 67
Interest	6,655 53	138,000 00	136,877 92	1,122 08
Lamp Department		67,000 00	66,615 93	384 07
Law Department	1,500 00	3,500 00	3,206 19	293 81
Overseers of the Poor Department:—				
Almshouse	1,239 65	22,000 00	21,774 97	225 03
Farm and Ledge	12,227 38	8,000 00	7,665 28	334 72
House Offal	7,033 52	23,747 23	23,747 23	
Outside Aid	4,381 33	40,720 95	40,720 95	
Almshouse Fire Protection		2,500 00	2,161 74	338 26
Assistant City Physician		1,500 00	1,500 00	
Police Department:—				
Current Expenses	5,890 41	107,890 41	107,736 80	153 61
Police Signal System, District One		3,850 00	3,845 00	5 00
Public Library Department:—				
Current Expenses	4,640 48	14,640 48	14,585 44	55 04
Building		20,000 00		20,000 00
Public Property:—				
Care and Repair:—				
City Buildings	3,240 20	20,336 99	20,336 99	
School Houses		43,254 11	43,254 11	
Construction and Alteration:—				
New Engine House, Ward One		12,000 00	5,641 42	6,358 58
New Engine House, Ward Three		10,448 56	10,447 55	1 01
New Engine House, Ward Four	55 00	27,500 00	15,863 31	11,636 69
New School House, Ward Two		16,800 00	12,967 35	3,832 65
Old High School House		1,500 00	1,500 00	
Police Station Ward Three		11,075 00	11,075 00	
Putnam School House		670 00	670 00	
Sanitary Arrangements, Schools		3,550 00	3,549 14	86
Wellington School House		11,950 00	11,947 25	2 75
Furniture and Furnishings:—				
Bridge School		800 00	797 22	2 78
Manual Training School		1,500 00	1,495 45	4 55
New High School		500 00	496 50	3 50
Wellington School		2,000 00	2,000 00	
Incidentals		3,714 32	3,714 32	
Land for Engine House, Ward One		3,525 00	3,525 00	
Land for School House, Ward Three		5,000 00		5,000 00
School Department:—				
Incidentals		1,675 00	1,639 49	35 51
Salaries	1,430 64	221,200 00	220,611 62	588 38
Text Books, etc	290 00	15,925 00	15,767 10	157 90
Sealer of Weights and Measures Dep't	366 99	1,750 00	1,654 93	95 07
Amounts carried forward	$75,628 51	$1,046,840 23	$992,987 76	$53,852 47

Recapitulation.—*Continued.*

City Department Accounts.	Receipts.	Appropriations.	Expended.	Balances Unexpen'd
Amounts brought forward	$75,628 51	$1,046,840 23	$992,987 76	$53,852 47
Sewer Department:—				
Construction	18,528 26	24,980 41	23,317 37	1,663 04
Maintenance	1,603 81	17,279 67	17,279 67	
Sinking Fund Department		104,095 00	104,095 00	
State Aid	15,294 74	26,000 00	25,469 80	530 20
Stationery and Printing	800 50	2,600 00	2,533 89	66 11
Street Department:—				
Bridges		4,500 00	4,374 93	125 07
Cleaning Streets	1,157 00	22,000 00	21,994 83	5 17
Collection of Ashes	1,173 45	15,750 00	15,688 38	61 62
Construction and Repairs	769 35	69,850 00	69,844 16	5 84
Front Street Filling and Grading		2,395 21	2,395 21	
Extensions and Widenings:—				
Front Street		10,000 00	6,963 67	3,036 33
Huron Street	1,302 00	13,535 32	8,691 41	4,843 91
Main Street		841 40	841 40	
North Avenue		2,021 80	1,979 69	42 11
Maintenance	35 00	10,900 00	10,882 83	17 17
Paving:—				
Cambridge Street		8,750 00	8,748 95	1 05
Gore Street		10,000 00	9,999 49	51
Western Avenue		11,000 00	10,956 33	43 67
Edgestones and Sidewalks	16,702 30	28,700 00	28,697 01	2 99
Shade Trees and Public Grounds	44 35	7,000 00	6,952 72	47 28
Watering	15,031 65	22,031 65	21,989 32	42 33
Treasury Department	1,664 91	12,500 00	12,179 00	321 00
	$149,735 83	$1,473,570 69	$1,408,862 82	$64,707 87

Water Department Accounts.	Receipts.	Appropriations.	Expended.	Balances Unexpen'd
Water Works Department:—				
Construction (General Account)	$4,754 19	$49,885 02	$49,885 02	
Construction (Fresh Pond Land Account)	1,255 00	79,218 97	61,038 37	$18,180 60
Construction (Fresh Pond Reservoir)	300 00	86,809 94	86,809 94	
Construction (Payson Park Reservoir)	1,480 00	41,480 00	35,733 98	5,746 02
Construction (Stony Brook Water Supply)		3,854 70	1,993 27	1,861 43
Interest	644 45	79,519 84	77,925 00	1,594 84
Maintenance	218 80	47,156 07	47,156 07	
Rates, Fines, etc	248,347 20			
Rates, Fines, etc. (Abatements)		3,500 00	3,131 65	368 35
Rates, Fines, etc. (Refunds)		1,687 34	1,687 34	
Sinking Fund)		60,357 17	60,357 17	
Supplies	6,175 09	7,000 00	5,122 86	1,877 14
Supplies (Abatements)		100 00	5 45	94 55
	$263,174 73	$460,569 05	$430,846 12	$29,722 93

Schedule of Real Estate Owned by the City of Cambridge, as shown on the Assessors' Books, November 30, 1893.

Cambridge Cemetery:—			
$60\frac{1}{10}$ acres of land		$60,000	
2 houses		12,500	
			$72,500
Cambridge Public Library:—			
135,621 feet of land		33,000	
Library Building		100,000	
			133,000
Fire Department:—			
Hook and Ladder No. 2, Portland street	$12,000		
11,931 feet of land	3,000		
		15,000	
Engine House No. 5, junction Cambridge and Hampshire Streets	10,000		
6,000 feet land	3,000		
		13,000	
Engine House and Police Station, Fourth Street	9,000		
4,220 feet land	2,100		
		11,100	
Engine House, cor. Otis and Third Streets:—			
Building	14,000		
Land	4,000		
		18,000	
Engine House No. 4 and stable, North Avenue	7,000		
6,516 feet land	3,000		
		10,000	
Engine House No. 2, Main Street	5,000		
3,150 feet land	3,000		
		8,000	
Engine House No. 6, River Street	12,000		
4,994 feet land	2,500		
		14,500	
			89,600
Pauper Department:—			
$14\frac{242}{1000}$ acres of land		11,000	
Almshouse buildings		25,000	
			36,000
Public Buildings and Lands:—			
City Hall (new) Main Street	200,000		
47,878 feet land	72,000		
		272,000	
Amounts carried forward		$272,000	$331,100

Amounts brought forward . . .		$272,000	$331,100
City Hall (old) Main Street . . .	$10,000		
12,881 feet land	19,300		
		29,300	
Ward One Building, Mt. Auburn Street	60,000		
16,153 feet land	9,700		
		69,700	
Ward Four Building, Green Street .	50,000		
13,028 feet land	10,500		
		60,500	
Stables, sheds and scales, Hampshire Street	17,000		
72,661 feet land	30,000		
		47,000	
1 house N. S. Spruce Street		200	
Park, Boylston, Mt. Auburn and Winthrop Streets, 10,236 feet land . .		6,000	
Park, S. S. Broadway, 107,181 ft. land		54,000	
Park, Hastings Square, 30,000 ft. land		9,000	
Public Buildings and Lands:—			
Park, Dana Square, 33,531 feet land		12,000	
Park, Pleasant Street, 1,372 feet land		1,000	
Park, Pleasant, River, Cottage and Kinnaird Streets, 1,569 feet land .		1,200	
Fort Washington, E. S. Waverly Street, 42,123 feet land		8,000	
Mill Pond, N. S. River Street, 305,690 feet		46,000	
Lot, S. S. Porter Street, 3,578 . . .		700	
Lot, E. S. Portland Street, 18,011 feet		5,500	
8 lots, E. S. Norfolk Street, 39,600 ft.		12,000	
Lot, S. S. Broadway, 12,329 feet . .		7,000	
Lot, Second Street, 26,400		2,600	
Lot, W. S. Reed Street, 1,500 feet .		100	
2 lots, Walden Street, 16,365 feet .		1,000	
Lot, N. S. River Street, 2,282 feet .		700	
Wharf, S. S. Main Street, 9,400 feet		7,300	
Flats, S. S. Main Street, 162,000 feet		7,600	
Common, Garden, North Avenue and Waterhouse Streets, 370,785 feet .		150,000	
Park, North Avenue, Kirkland and Cambridge Streets, 33,357 feet North Avenue and Harvard Square, 23,074 feet Park, North Avenue and Holmes Place, 20,956 feet		77,000	
Amounts carried forward		$887,400	$331,100

Amounts brought forward		$887,400	$331,100
Triangular lot, Main and Arrow Streets, 872 feet		800	
Burial ground, North Avenue and Garden Street, 3,189 feet . . .			
Triangular lot, Chauncy and Garden Streets, 85,858 feet		1,500	
Buildings and land, N. S. Bridge .		1,000	
			890,700

School Houses and Lands:—

WARD ONE.

New High School, Broadway . . .	$220,000		
74,366 feet land	18,000		
		238,000	
Washington Grammar, Brattle Street	30,000		
14,951 feet land	7,000		
		37,000	
Corlett Grammar, Holworthy Street .	3,000		
10,000 feet land	600		
		3,600	
Manual Training School, Broadway and Irving Street . . . . Land, 67,628 feet		18,600	
Agassiz Primary, Sacramento Street	18,000		
19,689 feet land	6,000		
		24,000	
Cushing Primary, Cushing Street .	3,000		
14,787 feet land	1,000		
		4,000	
Dunster Primary, Concord Avenue .	4,000		
10,000 feet land	2,000		
		6,000	
Holmes Primary, Hilliard Street . .	6,000		
11,182 feet land	4,500		
		10,500	
Lowell Primary, Lowell Street . .	7,000		
12,033 feet land	2,500		
		9,500	
Quincy Primary, Mason Street . .	10,000		
8,469 feet land	5,000		
		15,000	
Riverside Primary, Putnam Avenue	5,000		
11,198 feet land	3,000		
		8,000	
Amounts carried forward		$374,200	$1,221,800

Amounts brought forward		$374,200	$1,221,800
WARD TWO.			
Latin High, Fayette St.	$40,000		
37,828 feet of land	15,000		
		55,000	
Old Latin High, Lee St.	10,000		
10,100 feet land	5,000		
		15,000	
Wellington Training, Columbia St. .	16,000		
18,870 feet land	5,700		
		21,700	
Allston Grammar, Boardman Street .	18,000		
15,193 feet land	4,600		
		22,600	
Harvard Grammar, Inman Street .	40,000		
20,494 feet land	12,000		
		52,000	
Bridge Primary, Pioneer Street . .	500		
4,646 feet land	1,400		
		1,900	
Dana Primary, Centre Street . . .	2,000		
14,317 feet land	4,300		
		6,300	
Felton Primary, Amory Street . .	6,000		
15,090 feet land	4,500		
		10,500	
Gannett (old) Primary, Columbia St.	2,000		
8,803 feet land	2,500		
		4,500	
Gannett (new) Primary, Jefferson Street	12,000		
15,434 feet land	3,000		
		15,000	
Sargent Primary, Broadway . . .	3,000		
9,995 feet land	4,000		
		7,000	
Stearns Primary, Harvard Street .	3,000		
10,050 feet land	5,000		
		8,000	
WARD THREE.			
Putnam Grammar, Fourth and Otis Streets	60,000		
11,900 feet land	8,300		
		68,300	
Thorndike Grammar, Thorndike St.	30,000		
10,027 feet land	4,000		
		34,000	
Amounts carried forward		$696,000	$1,221,800

Amounts brought forward		$696,000	$1,221,800
Gore Primary, Gore Street	$25,000		
9,900 feet land	4,000		
		29,000	
Lassell Primary, Charles Street . .	8,000		
10,000 feet land	2,500		
		10,500	
Otis Primary, Otis Street	12,000		
8,270 feet land	4,000		
		16,000	
WARD FOUR.			
Webster Grammar, Upton Street .	50,000		
25,839 feet land	9,000		
		59,000	
Boardman Primary, Winsor Street .	12,500		
10,018 feet land	4,000		
		16,500	
Mason Primary, Front Street . . .	2,000		
10,000 feet land	8,000		
		10,000	
Tarbell Primary, Grigg Street . .	8,000		
19,500 feet land	4,000		
		12,000	
Willard Primary, Lake Street . .	20,000		
20,079 feet land	5,000		
		25,000	
Morse school house on Allston and Brookline Streets	73,000		
25,650 feet land	7,000		
		80,000	
WARD FIVE.			
Peabody Grammar, Linnæan Street	27,000		
21,813 feet land	7,000		
		34,000	
Shepard Grammar, North Avenue .	20,000		
14,755 feet land	7,000		
		27,000	
Reed Primary, Reed Street . . .	4,000		
12,000 feet land	1,200		
		5,200	
Wyman Primary, Spruce Street . .	6,000		
14,347 feet land	3,500		
		9,500	
			1,029,700
Amount carried forward			$2,251,500

Amount brought forward			$2,251,500
Sewer Department:—			
23,707 feet of land, Pilgrim Street .		$5,900	
Stables, shed, house and building .		4,100	
			10,000
Water Works:—			
House, shop and stable, S. S. Concord Avenue	$4,000		
$27\frac{33}{100}$ acres land	16,700		
		20,700	
Land, S. S. Concord Avenue, $\frac{5}{8}$ acre		300	
Land, E. S. Woodlawn Avenue, 15,735 feet		800	
Lot, rear of Grove Street, 272,800 ft.		2,000	
Lot, S. S. Concord Avenue, 99,000 ft.		1,000	
Land, S. S. Concord Avenue, 11,220 feet		100	
Two lots, S. S. Concord Avenue, 219,400 feet		2,200	
Gate-house lot, Concord Avenue, 43,560 feet		400	
Lot, S. S. Concord Avenue, 24,100 ft.		300	
Fresh Pond Lane, $11\frac{1}{4}$ acres land .		11,000	
Kingsley Park, Fresh Pond Lane, 309,336 feet		8,000	
Lot, rear Fresh Pond Lane, 364,608 feet		3,500	
Lot, Woodlawn Avenue, 107,616 ft.		8,000	
Lot, Woodlawn Avenue, 26,989 ft. .		1,600	
Lot, rear Fresh Pond Lane, 239,541 feet		5,000	
Lot, Woodlawn Avenue, 91,040 feet		2,000	
Lot, Holworthy Street, 18,480 feet .			
Lot, W. S. Cushing Street, 22,348 ft.		500	
Lot, E. S. Cushing Street, 41,053 ft.		800	
Lot, Cushing Street, cor. Woodland Avenue, 95,482 feet		2,000	
Lot, Woodland Avenue, 24,096 feet		1,900	
Lot, E. S. Cushing Street, 222,750 ft Lot, E. S. Cushing St., 416,800 ft. land		4,000	
Two lots, near Fresh Pond and Adams Place, 110,891 feet . . .		1,000	
Land, Adams Place, 55,275 feet . . 105,322 feet		1,400	
Lot, Woodlawn Ave.,25,216 feet land		1,200	
Amounts carried forward		$79,700	$2,261,500

Amounts carried forward		$79,700	$2,261,500
Gravel pit, S. S. Concord Avenue 397,417 feet		3,000	
190,500 feet land Adams Street . .		4,300	
Lot, W. S. Cushing Street, 91,112 .		500	
Near Concord Avenue, 4½ acres . .		5,000	
Adams Place, 419,222 feet land . .		10,000	
S. S. Concord Ave., 10,805 feet land		500	
S. S. Concord Ave., 32,425 feet land		700	
S. S. Concord Ave., 62,000 feet land		1,200	
Lot, Adams Street, 1¾ acres . . .		1,000	
Concord Avenue, 294,000 feet land .		3,000	
Tudor Park, near Concord Avenue, 57,312 feet land			
Pumping Station, Worthington St. . 90,414 feet land		61,000	
Reservoir, Reservoir Street, 91,003 feet land		18,000	
Two houses, stable and sheds and building, S. S. Auburn Street . .	5,700		
33,300 feet land	6,600		
		12,300	
Lot, Grove Street, 150,000 feet . .		1,500	
Land and buildings, Grove Street, 519,000 feet		11,000	
			$212,700 00
Total			$2,474,200 00

The following is a summary of the real and personal property under the charge of heads of departments and executive boards:

	Real.	Personal.
Bridge Commissioners	$3,370 00	$2,598 00
Chief Engineer of Fire Department		59,624 00
Chief of Police		12,282 50
City Engineer		20,253 50
Commissioners of Cambridge Cemetery	78,000 00	11,380 80
Inspector of Milk and Vinegar		100 00
Inspector of Wires		26,750 00
Overseers of the Poor	52,133 94	18,384 00
School Committee		23,982 46
Superintendent Lamps		7,476 00
Superintendent of Public Buildings	1,341,900 00	54,331 01
Superintendent of Sewers	9,400 00	4,100 00
Superintendent of Streets	119,900 00	51,360 00
Trustees of Cambridge Public Library	133,000 00	64,030 49
Water Board	490,275 00	101,880 00
	$2,227,978 94	$458 532 76

The following is a schedule of property used for religious, charitable and educational purposes, and exempt from taxation by law, not including that owned by the City of Cambridge:—

Exempted Property.

WARD ONE.

Christ Church, Episcopal, Garden Street:—		
Church	$12,000 00	
19,215 feet land	10,000 00	
		$22,000 00
First Parish Church, Unitarian:—		
Church, North Avenue . .	20,000 00	
14,764 feet land	22,000 00	
		42,000 00
Cambridge Social Union:—		
House, No. 42 Brattle Street	5,000 00	
$\frac{13}{22}$ of hall	7,000 00	
9,030 feet of land	6,000 00	
		18,000 00
Epworth M. E. Church:—		
Church, North Avenue . .	80,000 00	
11,248 feet land	10,000 00	
		90,000 00
Old Cambridge Baptist Society:—		
Church, Main and Harvard Streets	86,000 00	
34,573 feet land	24,000 00	
		110,000 00
Shepard Congregational Society:—		
Church, Garden Street . .	100,000 00	
34,556 feet land	21,000 00	
		121,000 00
St. Peter's, Catholic:—		
Concord Avenue	45,000 00	
32,000 feet land	10,000 00	
		55,000 00
St. Paul's, Catholic:—		
Mt. Auburn Street . . .	30,000 00	
11,216 feet land	8,000 00	
		38,000 00
Amount carried forward .		$496,000 00

Amount brought forward .		$496,000 00
St. Paul's Catholic School Association:—		
Personal property . .	$2,000 00	
School building . . .	55,000 00	
House, Arrow and Mt. Auburn Streets . .	7,000 00	
29,091 feet land . . .	15,000 00	
		79,000 00
Cambridge Hospital:—		
Personal property . .	116,840 25	
Building, Mt. Auburn St.	60,000 00	
412,487 feet land . . .	50,000 00	
		226,840 25
Longfellow Memorial Association:—		
Personal property . .	15,702 83	
Park, S. S. Brattle Street, 93,618 feet	36,000 00	
		51,702 83
Episcopal Theological School, Trustees of:—		
Personal property . .	148,792 57	
Chapel, seminary, dormitories and one house, Brattle and Mason Streets	210,400 00	
101,874 feet land . . .	51,000 00	
Lot, 2,980 feet, rear of Brattle Street . . .	1,500 00	
Two houses, Hawthorne and Acacia Streets .	10,300 00	
7,500 feet land . . .	3,700 00	
Winthrop Hall	42,000,00	
16,468 feet land . . .	6,500 00	
		474,192 57
Avon Home, Mt. Auburn Street:—		
Building	22,000 00	
69,751 feet land . . .	13,700 00	
Personal property . .	33,626 00	
		69,326 00
Amount carried forward .		$1,397,061 65

Amount brought forward .		$1,397,061 65	
Society for the Collegiate Instruction of Women:			
Personal property . .	$75,000 00		
Two houses, laboratory and gymnasium, Garden and Mason Streets	40,500 00		
43,558 feet land . . .	30,000 00		
		145,500 00	
The Corporation of the New Church Theological School:—			
Personal property . .	42,324 00		
Two houses and stable, 42–48 Quincy street .	16,000 00		
82,880 feet land . . .	48,000 00		
		106,324 00	
President and Fellows of Harvard College:—			
Personal property . .	5,514,326 00		
Dormitories, chapels, laboratories, museums, lecture rooms and houses, including Ward Five property . . .	2,733,360 00		
		8,247,686 00	
			9,896,571 65
	WARD TWO.		
Baptist Church, trustees of funds of:—			
Chapel, Hampshire St. .	$3,000 00		
2,560 feet land . . .	800 00		
		$3,800 00	
Broadway Bap. Church:—			
Church, W. S. Boardman Street	30,000 00		
11,620 feet land . . .	8,000 00		
		38,000 00	
Cambridgeport Unitarian Society:—			
Church, N. S. Austin Street	18,000 00		
13,116 feet land . . .	8,000 00		
		26,000 00	
Amounts carried forward .		$67,800 00	$9,896,571 65

Amounts brought forward .		$67,800 00	$9,896,571 65
Harvard Street M. E. Society:—			
Church, N. S. Harvard Street	$22,000 00		
10,030 feet land . . .	8,000 00		
		30,000 00	
St. Paul's A. M. E. Church:			
Church, N. S. Hastings Street	2,000 00		
5,386 feet land	2,000 00		
		4,000 00	
Hope Congregational Church:—			
Church, N. S. Harvard Street	8,000 00		
6,000 feet land	3,000 00		
		11,000 00	
First Evangelical Congregational Society:—			
Church, W. S. Prospect Street	40,000 00		
19,153 feet land . . .	12,000 00		
		52,000 00	
First A. M. E. Society:—			
House, 108 Hastings Street	600 00		
1,616 feet land	500 00		
		1,100 00	
First Universalist Society of Cambridge:—			
Church, E. S. Inman Street	20,000 00		
15,312 feet land . . .	11,300 00		
		31,300 00	
St. Mary's Parochial School:			
Church, W. S. Norfolk, corner Harvard Street	45,000 00		
Girls' School, S. S. Harvard Street	8,000 00		
Boys' School, E. S. Essex Street	18,000 00		
Sisters' Home, 50 and 52 Essex Street	7,000 00		
57,428 feet land . . .	20,000 00		
Amounts carried forward .	$98,000 00	$197,200 00	$9,896,571 65

Amounts brought forward .	$98,000 00	$197,200 00	$9,896,571 65
Theatre, E. S. Norfolk Street	15,000 00		
13,032 feet land . . .	6,500 00		
Gymnasium, E. S. Prospect Street	35,000 00		
11,370 feet land . . .	5,600 00		
House, 55 Norfolk Street	7,500 00		
7,500 feet land	2,300 00		
		169,900 00	
Cambridge Home for Aged People, 157 Hancock Street:—			
Personal property . . .	24,693 55		
12,094 feet land . . .	6,000 00		
One house	7,000 00		
		37,693 55	
St. Bartholomew's Church, W. S. Columbia Street .	6,000 00		
5,562 feet land	1,500 00		
		7,500 00	
St. Luke's Reformed Episcopal Church, N. S. Harvard, corner of Inman Street:—			
6,250 feet land	4,700 00		
Church building . . .	9,000 00		
		13,700 00	
First United Presbyterian Church:—			
S. S. Camb. St., church .	6,000 00		
9,288 feet land	4,700 00		
		10,700 00	
Salvation Army, E. S. Prospect St.:—			
Barracks		4,000 00	
			440,693 55
WARD THREE.			
First Methodist Episcopal Church:—			
Church, Cambridge, corner Third St. . . .	$25,000 00		
5,000 feet land	12,500 00		
		37,500 00	
Amounts carried forward .		$37,500 00	$10,337,265 20

Amounts brought forward .		$37,500 00	$10,337,265 20
Mass. Baptist Convention, Tr.:—			
Church, Cambridge and Fourth Sts.	$25,000 00		
6,000 feet land	10,000 00		
		35,000 00	
Mission of the Ascension:			
Church, Third and Thorndike Sts.	5,000 00		
5,000 feet land	4,000 00		
		9,000 00	
Second Universalist Society:			
Church, Otis St. . . .	16,000 00		
5,000 feet land . . .	3,000 00		
		19,000 00	
St. John's Church:—			
Church, Fourth St. . .	15,000 00		
5,000 feet land	3,000 00		
		18,000 00	
Church of the Sacred Heart:			
Church, Sixth, Otis, and Seventh Sts.	70,000 00		
30,000 feet land . . .	12,000 00		
		82,000 00	
Middlesex County Buildings:—			
Court House, Third, Otis, and Thorndike Sts. .	70,000 00		
Registry of Deeds, Second, Otis, and Third Sts. .	175,000 00		
60,000 feet land . . .	36,000 00		
		281,000 00	
House of Correction, Jail, and shops, Thorndike, Third, Spring, and Second Streets	250,000 00		
60,000 feet land . . .	24,000 00		
		274,000 00	
St. John Lit. Institute:—			
Hall and stores, Cambridge Street, ⅔ value .	20,000 00		
½ of 6,300 feet land . .	4,700 00		
Cash assets	1,300 00		
		26,000 00	
			$781,500 00
Amount carried forward .			$11,118,765 20

Amount brought forward .			$11,118,765 20
	WARD FOUR.		
Cambridge Young Men's Christian Association:—			
Personal property . . .	2,037 00		
Building, 622–624 Main Street	8,000 00		
Land	8,000 00		
		18,037 00	
Charles River Baptist Church:—			
Church E. S. Magazine Street	2,500 00		
11,250 feet land . . .	3,000 00		
		5,500 00	
First Baptist Society:—			
Church, Central Square .	80,000 00		
21,200 feet land	20,000 00		
		100,000 00	
Grace M. E. Church:—			
Church, E. S. Magazine Street	35,000 00		
7,700 feet land	5,000 00		
		40,000 00	
Massachusetts Baptist Convention — Union Baptist Church:—			
Church, 452 Main Street	10,000 00		
3,900 feet land	2,800 00		
		12,800 00	
Pilgrim Congregational Church:—			
Church, W. S. Magazine Street	30,000 00		
8,885 feet land	7,500 00		
		37,500 00	
Baptist Home, 168 and 170 Brookline Street, two houses and stable . . .	16,000 00		
Personal	5.644 00		
		21,644 00	
Amounts carried forward .		$235,481 00	$11,118,765 20

Amounts brought forward.		$235,481 00	$11,118,765 29
Protestant Episcopal Church, Trustees of Donations to:—			
Church, S. S. Main Street (St. Peter's)	$10,000 00		
9,229 feet land	9,000 00		
		19,000 00	
East End Union Mission:—			
Church, W. S. Brewery Street, on Rogers' land		3,500 00	
Rush African M. E. Zion Church:—			
Church, S.S. School Street	6,000 00		
2,760 feet land	1,100 00		
		7,100 00	
St. Phillip's Church, Episcopal:—			
Church, N. S. Allston Street	3,000 00		
4,686 feet land	1,200 00		
		4,200 00	
Wood Memorial Church, Congregationalist:—			
Church, W. S. Columbia, corner Austin Street	30,000 00		
7,500 feet land	4,000 00		
		34,000 00	
			303,281 00
WARD FIVE.			
Catholic Cemetery, Spruce Street, 304,014 feet		$24,000 00	
North Avenue Congregational Society:—			
Church, North Avenue	$30,000 00		
13,430 feet land	6,500 00		
		36,500 00	
Porter's Station Depot, North Avenue, Fitchburg Railroad Company		2,000 00	
Third Universalist Society:			
Church, North Avenue	30,000 00		
11,958 feet land	6,000 00		
		36,000 00	
Amounts carried forward.		$98,500 00	$11,422,046 20

Amounts brought forward .		$98,500 00	$11,422,046 20
St. James' Episcopal Society:—			
Church and chapel, North Avenue and Beech Street	$75,000 00		
21,207 feet land (cemetery lot included) . .	10,000 00		
		85,000 00	
North Avenue Baptist Society:—			
Church, North Avenue .	55,000 00		
38,873 feet land . . .	15,000 00		
		70,000 00	
Williams, John J., S. S. Spruce Street:—			
School house	40,000 00		
20,000 feet land . . .	2,000 00		
		42,000 00	
Marist Fathers of Boston French Roman Catholic Church:—			
Church, N. S. Harvey St.,	30,000 00		
21,645 feet land . . .	3,000 00		
		33,000 00	
			328,500 00
			$11,750,546 20

REPORT

OF THE

COMMITTEE ON ACCOUNTS.

CAMBRIDGE, December 26th, 1893.

To the Honorable City Council of the City of Cambridge: —

IN conformity with the requirements of the City Ordinances, the Committee on Accounts for the year 1893, herewith submits its annual report for the year ending November 30.

The committee has met from time to time and made the prescribed examination of the books and accounts of the Auditing Department, and has found them kept with the utmost care and correctness.

CHAS. W. CHENEY,
ANDREW J. RADY,
CHAS. M. CONANT,
THOS. F. DOLAN,
ALFRED B. PARKER,

Committee on Accounts.

REPORT

OF THE

COMMITTEE ON FINANCE.

THE Committee on Finance for the year 1893, herewith submits its annual report.

The annual financial estimates with the usual accompanying orders were reported in February last as provided by ordinance. They were as follows : —

Estimates of Appropriations and Revenue, 1893.

REVENUE.

City Department Accounts.

For account of Bridges. (West Boston, Craigie's and Prison Point)	$400 00
For account of Cambridge Cemetery. Receipts for Sale and Care of Lots and Burial Fees	19,000 00
For account of Cambridge Public Library. Receipts from all Sources	4,000 00
For account of City Clerk's Department. Receipts from all Sources	2,560 00
For account of City Treasurer's Department. Receipts from all Sources	1,500 00
For account of Fire Department. Receipts from all Sources	200 00
For account of Inspector of Milk & Vinegar. Receipts from all Sources	150 00
For account of Inspector of Wires. Receipts from all Sources	300 00
For account of Interest. Receipts Interest of Taxes, etc.	4,500 00
For account of Law Department. Receipts from Water Board, Three Fifths Salary City Solicitor	1,500 00
For account of Overseers of the Poor :	
Almshouse. Receipts Sale of Farm Produce, etc. .	2,000 00
Farm and Ledge. Receipts Sale of Stone, etc. . .	10,500 00
House Offal. Receipts Sale of Offal	7,500 00
Outside Aid. Receipts Aid outside of Almshouse.	3,500 00
Amount carried forward	$57,610 00

Amount brought forward		$57,610 00
For account of Police Department. Receipts Fees from Clerk of Courts, etc.		5,000 00
From account of Public Property:		
City Buildings. Receipts Rent of Public Buildings, etc.	$2,200 00	
Care and Repairs. Receipts Rent of Armories . .	800 00	
		3,000 00
From account of School Department:		
Salaries. Receipts Hopkins Charity	750 00	
Salaries. Receipts Tuition (non-residents)	750 00	
		1,500 00
Text Books and Stationery. Receipts Sale and Damage to Books		300 00
For account of Sealer of Weights and Measures. Receipts Fees		600 00
For account of Sewer Department:		
Construction. Receipts Assessments		11,000 00
Maintenance. Receipts City of Somerville (Bridge Street Sewer)	1,235 00	
Other Sources. Receipts	265 00	
		1,500 00
For account of State Aid. Receipts Allotment from State		15,000 00
For account of Stationery and Printing. Receipts Various Sources		600 00
For account of Street Department:		
Cleaning Streets. Receipts		2,000 00
Collection of Ashes. Receipts from Sale of Ashes .		1,000 00
Extension of Huron Street. Receipts from Various Sources		1,302 50
Paving (Western Avenue). Receipts from Edgestone Assessments		500 00
Paving, Edgestones, etc. From Assessments Watering. Receipts from Collections from Street Watering		15,000 00
		14,000 00
Total Estimated Revenue from City Department Appropriation Accounts		129,912 00

Water Department Accounts.

For account of Water Works. Receipts for Rates, Fines, etc.	$255,902 50	
For account of Water Works. Receipts for Supply Pipes, Repairs, etc.	7,100 00	
Total estimated Revenue from Water Department Appropriation Accounts		263,002 50
Total estimate from City and Water Departments . .		392,914 50
Amount carried forward		$392,914 50

Other Revenue.

Amount brought forward		$392,914 50
Amount of Corporation Tax from Commonwealth for 1893 (estimated)	60,000 00	
Amount of National Bank Tax from Commonwealth for 1893 (estimated) $17,000 less $6,000	11,000 00	
Amount of Uncollected Taxes for 1892, and previous years (estimated)	120,000 00	
Cash in Treasury, December 1, 1892	128,453 52	
		319,453 52
Total estimated Revenue		$712,368 02

APPROPRIATIONS.

City Department Accounts.

	Revenue.	*Net Expense.*	*Appropriations.*
Assessors' Department		$11,000 00	$11,000 00
Auditor's Department		3,500 00	3,500 00
Bridge Department	$400 00	13,000 00	13,400 00
Cambridge Cemetery:			
Current Expenses	19,000 00	500 00	17,000 00
New Gateway and Fence . . .			2,500 00
Cambridge Public Library . . .	4,000 00	10,000 00	14,000 00
City Clerk's Department	2,560 00	3,400 00	5,960 00
City Messenger's Department . .		2,600 00	2,600 00
City Treasurer's Department . . .	1,500 00	11,000 00	12,500 00
Civil Service		250 00	250 00
Clerk of Committees		3,500 00	3,500 00
Election Expenses:			
City Clerk		4,500 00	4,500 00
Registrars of Voters		4,000 00	4,000 00
Superintendent of Public Buildings		1,200 00	1,200 00
Engineering Department		10,500 00	10,500 00
Executive Department		4,700 00	4,700 00
Fire Department	200 00	61,800 00	62,000 00
Health Department		7,000 00	7,000 00
Incidental Expenses		20,000 00	20,000 00
Inspection of Milk and Vinegar .	150 00	1,150 00	1,300 00
Inspection of Wires	300 00	8,200 00	8,500 00
Interest	4,500 00	133,500 00	138,000 00
Law Department	1,500 00	2,000 00	3,500 00
Lighting Streets		67,000 00	67,000 00
Overseers of the Poor:			
Almshouse	2,000 00		22,000 00
Farm and Ledge	10,500 00	17,500 00	8,000 00
Outside Aid	3,500 00	31,000 00	34,500 00
City Physician		1,500 00	1,500 00
House Offal	7,500 00	15,500 00	23,000 00
Amounts carried forward . .	$57,610 00	$449,800 00	$507,410 00

	Revenue.	*Net Expense.*	*Appropriations*
Amounts brought forward . .	$57,610 00	$449,800 00	$507,410 00
Police Department:			
Current Expenses	5,000 00	102,000 00	107,000 00
Police Signal System (Dist. One)		3,850 00	3,850 00
Public Property—Care and Repair:			
City Buildings	3,000 00	17,000 00	20,000 00
School Houses		43,000 00	43,000 00
Construction and Alteration:			
Latin School House		1,500 00	1,500 00
New Engine House, Ward Three		10,448 56	10,448 56
New School House, Ward Two .		15,000 00	15,000 00
Sanitary Arrangements—Schools.		3,000 00	3,000 00
Police Station, Ward Three . .		10,000 00	10,000 00
Wellington School House . . .		11,950 00	11,950 00
Furniture and Furnishings:			
Manual Training School House .		1,500 00	1,500 00
New High School House . . .		500 00	500 00
Wellington School House . . .		2,000 00	2,000 00
Land for Engine House, Ward One		4,000 00	4,000 00
Land for School House, Ward Three		5,000 00	5,000 00
Incidentals		3,500 00	3,500 00
School Department:			
Incidentals		1,600 00	1,600 00
Salaries	1,500 00	220,500 00	222,000 00
Text-books, etc.	300 00	15,700 00	16,000 00
Sealer of Weights and Measures .	600 00	1,000 00	1,600 00
Sewer Department:			
Construction	11,000 00	9,000 00	20,000 00
Maintenance	1,500 00	21,500 00	23,000 00
Sinking Funds		104,095 00	104,095 00
State Aid	15,000 00	11,000 00	26,000 00
Stationery and Printing	600 00	2,000 00	2,600 00
Street Department:			
Bridges		4,500 00	4,500 00
Cleaning streets	2,000 00	21,000 00	23,000 00
Collection of ashes	1,000 00	14,000 00	15,000 00
Construction and Repairs . . .		50,000 00	50,000 00
Extension of Huron street . .	1,302 00	10,233 32	11,535 32
Filling and Grading, Front street		2,395 21	2,395 21
Maintenance		40,000 00	40,000 00
Paving, Cambridge street . . .		7,650 00	7,650 00
Paving, Western avenue . . .	500 00	11,500 00	12,000 00
Edgestones and Sidewalks . . .	15,000 00	12,500 00	27,500 00
Shade Trees and Public Grounds		7,000 00	7,000 00
Watering	14,000 00	7,000 00	21,000 00
Widening, North avenue . . .		2,021 80	2,021 80
	$129,912 00	$1,260,243 89	$1,390,155 89

Water Department Accounts.

Water Works:

	Revenue.	*Net Expense.*	*Appropriation.*
Construction: General Account		$45,000 00	$45,000 00
Construction Fresh Pond Reservoir			65,000 00
Construction Fresh Pond Land		84,604 74	84,604 74
Construction High Service Reservoir		40,000 00	40,000 00
Construction Stony Brook		3,854 70	3,854 70
Maintenance			46,000 00
Interest on Water Loan			80,000 00
Rates, Fines, Abatements			3,500 00
Rates, Fines, Refunds			1,500 00
Sinking Fund			59,902 50
Supplies			7,000 00
Supply Abatement	7,100 00		100 00
Rates, Fines, etc.	255,902 50		
	$263,002 50	$173,459 44	$436,461 94

Recapitulation.

	Revenue.	*Net Expense.*	*Appropriation.*
Total estimates, City Department Accounts	$129,912 00	$1,260,243 89	$1,390,155 89
Total estimates, Water Department Accounts	263,002 50	173,459 44	436,461 94
Grand Totals	$392,914 50	$1,433,703 33	$1,826,617 83
Amount of estimated expenses, as before recited		$1,826,617 83	
Allowance for estimated uncollected taxes *of the year* 1893, remaining uncollected as of November 30, 1893		130,000 00	
Total Appropriations and Liabilities			$1,956,617 83
LESS.			
Estimated Revenue of all kinds and Cash in the Treasury, as hereinbefore recited			$712,368 02
Leaving an amount to be provided for of			$1,244,249 81

The Committee recommended that this amount be provided for as follows: —

1. By the issue of Water Loan Bonds, viz.: Water Works (Construction)	$135,000 00	
2. By assessment upon the polls and estates of the inhabitants of Cambridge, etc., for the current year, being the amount required for municipal expenses for the year (the State Tax and County Tax to be assessed by the Assessors, by authority of Law, in addition hereto)	1,109,249 81	
Total		$1,244,249 81

In accordance with the foregoing, the Committee recommended the adoption of the accompanying orders: —

CITY OF CAMBRIDGE,
IN COMMON COUNCIL, Feb. 21, 1893.

Ordered, That the Sum of *One Million, One Hundred and Nine Thousand, Two Hundred and Forty-nine Dollars and Eighty-one Cents* ($1,109,249 81) be raised by assessment upon the Polls and Estates of the Inhabitants of the City of Cambridge and the Estates of non-resident proprietors, according to law, to defray the current expenses of the city, for the Financial year beginning December 1, 1892, and ending November 30, 1893.

CITY OF CAMBRIDGE,
IN COMMON COUNCIL, Feb. 21, 1893.

Ordered, That the sums following be and are hereby appropriated towards defraying the expenses of the City of Cambridge for the Financial year beginning December 1, 1892, and ending November 30, 1893 :—

For Assessors' Department	$11,000 00
Auditor's Department	3,500 00
Bridge Department	13,400 00
Cambridge Cemetery—Current Expenses	17,000 00
New Gateway and Fence	2,500 00
Cambridge Public Library	14,000 00
City Clerk's Department	5,960 00
City Messenger's Department	2,600 00
City Treasurer's Department	12,500 00
Civil Service	250 00
Clerk of Committees	3,500 00
Election Expenses—City Clerk	4,500 00
Registrars of Voters	4,000 00
Superintendent of Public Buildings	1,200 00
Engineering Department	10,500 00
Executive Department	4,700 00
Fire Department	62,000 00
Health Department	7,000 00
Incidental Expenses	20,000 00
Inspection of Milk and Vinegar	1,300 00
Inspection of Wires	8,500 00
Interest	138,000 00
Law Department	3,500 00
Lighting Streets	67,000 00
Overseers of the Poor—Almshouse	22,000 00
Farm and Ledge	8,000 00
Outside Aid	34,500 00
City Physician	1,500 00
House Offal	23,000 00
Amount carried forward	$507,410 00

Amount brought forward	$507,410 00
For Police Department—Current Expenses	107,000 00
Police Signal System (District One)	3,850 00
Public Property—Care and Repair :—	
City Buildings	20,000 00
School Houses	43,000 00
Construction and Alteration:—	
Latin School House	1,500 00
New Engine House, Ward Three	10,448 56
New School House, Ward Two	15,000 00
Sanitary Arrangements—Schools	3,000 00
Police Station, Ward Three	10,000 00
Wellington School House	11,950 00
Furniture and Furnishings: Manual Training School	1,500 00
New High School House	500 00
Wellington School House	2,000 00
Land for Engine House, Ward One	4,000 00
Land for School House, Ward Three	5,000 00
Incidentals	3,500 00
School Department—Incidentals	1,600 00
Salaries	222,000 00
Text-books, etc.	16,000 00
Sealer of Weights and Measures	1,600 00
Sewer Department—Construction	20,000 00
Maintenance	23,000 00
Sinking Funds	104,095 00
State Aid	26,000 00
Stationery and Printing	2,600 00
Street Department—Bridges	4,500 00
Cleaning streets	23,000 00
Collection of Ashes	15,000 00
Construction and Repairs	50,000 00
Extension of Huron street	11,535 32
Filling and Grading, Front street	2,395 21
Maintenance	40,000 00
Paving—Cambridge street	7,650 00
Western avenue	12,000 00
Edgestones and Sidewalks	27,500 00
Shade Trees and Public Grounds	7,000 00
Watering	21,000 00
Widening, North avenue	2,021 80
Water Works:—	
Construction, General Account	45,000 00
Construction Fresh Pond Reservoir	65,000 00
Construction Fresh Pond Land	84,604 74
Construction High Service Reservoir	40,000 00
Construction Stony Brook	3,854 70
Maintenance	46,000 00
Amount carried forward	$1,674 615 33

Amount brought forward	$1,674,615 33
Interest on Water Loan	80,000 00
Rates, Fines, "Abatements"	3,500 00
Rates, Fines, "Refunds"	1,500 00
Sinking Fund	59,902 50
Supplies	7,000 00
Supplies, Abatements	100 00
	$1,826,617 83

The estimates before recited were duly reported to the City Council, February 21st, the net amount therein named as necessary to be raised by taxation being the sum of	$1,109 249 81
The City Council amended the appropriation recommended for the new Engine House in Ward Three, adding thereto the sum of	1,000 00
Increasing the amount to be raised by taxation to	1,110,249 81
To this latter amount the Assessors added the State and County Tax, and other assessments amounting to	193,308 84
Making the total amount of the warrant	$1,303,558 65

The details of these additions are given in full in the report of the City Auditor.

Special appropriations were also recommended from time to time during the year as follows: —

For enlargement of the Public Library	$20,000 00
For New Engine House in Ward One	12,000 00
For New Engine House in Ward Four	27,500 00
For Almshouse, Fire Protection	2,500 00
For Harvard Bridge	10,000 00
Total	$72,000 00

Several of the appropriations reported in the annual list of estimates were subsequently increased by the addition of unestimated revenue, or by transfers, the net increase from revenue being $11,414.80.

The total amount of appropriations recommended by this Committee for the year ending November 30, 1893, was as follows: —

City Department Accounts.

Total amount reported in February		$1,390,155 89
Engine House No. 3, additional		1,000 00

TO BE MET BY BUILDING LOAN.

Engine House in Ward One	$12,000 00	
Engine House in Ward Four	27,500 00	
Public Library Enlargement	20,000 00	
		59,500 00

TO BE MET BY HARVARD BRIDGE LOAN.

Harvard Bridge	10,000 00

MET FROM SURPLUS REVENUE.

Sundry appropriations: Increase	13,914 80
Total City Department Appropriations	$1,474,570 69

Water Department Accounts.

Appropriations in February	$436,461 94
Increase, various appropriations	24,107 11
	$460,569 05

The City Loans recommended by this Committee were as follows: —

FOR CITY DEPARTMENTS.

Building Loans: Engine Houses	$40,000 00	
Harvard Bridge	10,000 00	
		$50,000 00

FOR WATER DEPARTMENT.

Water Works Construction	$150,000 00

Further particulars relating to these loans may be found in the annual report of the City Auditor.

A sub-committee consisting of President Russell of the Common Council, Alderman Fillmore and Councilman Conant was appointed to examine the condition of the City Treasury at the close of business on the last business day of the financial year, Wednesday, November 29.

Their report is as follows: —

CITY OF CAMBRIDGE, December 21, 1893.

To the Committee on Finance:

The sub-committee appointed to count and examine the cash in the hands of the Treasurer at the close of business on Nov. 29, 1893, would respectfully report.

Nov. 29, 1893. Actual cash in Treasurer's office was .		$7,249 97
A certificate from W. A. Bullard, cashier of first National Bank of Cambridge, showing a balance to the credit of the Treasurer of	$131,044 45	
From this balance should be deducted checks given by the Treasurer prior to Nov. 29, 1893, but not received by the Bank amounting to	8,414 16	
Leaving a balance in above Bank, as shown by the Treasurer's books of		122,630 29
A certificate from Geo. H. Holmes, Cashier of Charles River National Bank of Cambridge, showing a balance to the Credit of the Treasurer of		9,565 44
Making the total cash on hand		$139,445 70
Dec. 21, 1803. After certain additional entries were made belonging to the Financial year of 1893, your committee found receipts and expenditures as follows:		

RECEIPTS.

From Commonwealth of Massachusetts for		
Overseers of the Poor, Almshouse Dept.	35 65	
Overseers of the Poor, Outside Aid Dept.	720 51	
Corporation Tax	66,752 23	
State Aid	15,135 94	
National Bank Tax, being amount received for stocks of Massachusetts Banks outside of Cambridge, owned by Cambridge residents	17,360 37	
Total		100,004 70
Which amount added to the Treasurer's balance of Nov. 29, 1893, makes a total of		$239,450 40

EXPENDITURES.

Authorized additional payments as of November 29, 1893, and verified by the Auditor's books, as follows:		
Pay Rolls for the last five days in November, 1893 . .	5,103 74	
State Tax for the year 1893	77,850 00	
Metropolitan Sewer Tax, being amount paid on account of the Metropolitan Sewer for Interest and Sinking Fund thereof, Assessment of Cambridge for the year 1893	17,363 62	
		100,317 36

Amount brought forward		$100,317 36
National Bank Tax, refunding of Taxes on non-resident owners	6,659 26	
Surplus in running account of the Water Works paid to the Trustees of the Water Loan Sinking Fund .	454 67	
Temporary Loan, amount held by Treasurer for account of City Note of above loan not yet presented	30,000 00	
		137,431 29
Showing a balance of cash in the Treasurer's hands as of Nov. 29, 1893 of		102,019 11
Your committee would further state that we carefully examined the drafts made by the Mayor during the year on the Treasurer, and found the amount in the aggregate to be	$2,860,131 33	
All the foregoing amounts are named in the Treasurer's report, and are also verified by the accounts on the Auditor's books as follows:		
Amount of Mayor's drafts as per sheet of City Auditor, date of Dec. 9, 1893		2,846,618 68
Actual amount of Mayor's drafts made on City Treasurer as by his report and books, which drafts were received by him in the Financial year ending Nov. 29, 1893		2,860,131 33
From the above subtract amount of Mayor's draft No. 118, date of Dec. 9, 1892, the same being for payment of bills of November, 1892 and paid in the Financial year of 1893	62,056 20	
	2,798,075 13	
To this amount add amount of Mayor's draft No. 124 date of Dec. 8, 1893, the same being for payment of bills of November, 1893, and to be paid in the Financial year of 1894	48,543 55	
		$2,846,618 68
The difference between the Treasurer's and Auditor's books being that the Treasurer in his accounts includes the last month of the last Financial year and excludes the last month of the present Financial year.		
Your committee also examined the "Trust Fund" called the "Cemetery Fund" for the perpetual care of lots in the Cambridge Cemetery, the assets of which are in the custody of the City Treasurer, verifying the investments thereof which are as follows;		
Book No. 21,716 in Cambridge Savings Bank amount of deposit	1,212 54	
Book No. 21,926 in Cambridgeport Savings Bank amount of deposit	1,590 99	
City of Cambridge bonds at par amounting to . . .	26,000 00	
Total assets as of Nov. 29, 1893		$28,803 53

J. HENRY RUSSELL,
WELLINGTON FILLMORE,
CHAS. M. CONANT. } *Sub-Committee.*

In the foregoing pages it was intended that a brief review only should be given of such financial transactions as were shaped mainly through the recommendations of the Committee on Finance, avoiding as far as possible any repetition of figures that properly belong in the report of the City Auditor, and which are given there in detail. Many important matters have been under consideration before the Committee, several of which, relating to extensive public improvements, are still pending. Among these may be mentioned the proposed extension of Huron street easterly, and the laying out of the continuing streets between it and North avenue; the widening of Harvard street between Quincy square and Harvard square; and the latest recommendations of the Park Commissioners relating to the acquirement, for park purposes, of lands on the borders of Charles River.

JOHN R. FAIRBAIRN,
JOHN H. PONCE,
ANDREW J. RADY,
WELLINGTON FILLMORE,
J. HENRY RUSSELL,
FRANK E. SANDS,
PETER P. BLEILER,
RUSSELL BRADFORD,
CHARLES M. CONANT,
ARTHUR M. STEWART,

Committee on Finance.

REPORT

OF THE

CITY TREASURER.

OFFICE OF CITY TREASURER, December 1, 1893.

To the Honorable the City Council:—

I HEREWITH submit my sixteenth annual report as City Treasurer, covering the year ending November 30, 1893.

Said report shows that the cash balance in the city treasury November 30, 1892, was	$190,509 72
The amount received into the treasury during the year ending November 30, 1893, from all sources, was	2,771,640 72
	$2,962,150 44
The authorized payments during the year amounted to	2,860,131 33
Leaving a balance in the treasury November 30, 1893, of . .	$102,019 11

Respectfully submitted,

WM. W. DALLINGER,
City Treasurer.

CITY OF CAMBRIDGE IN ACCOUNT CURRENT FROM DECEMBER 1ST, 1892, TO

Dr.

To authorized payments charged to City Accounts as follows :—	
Abatements, Taxes	$24,678 10
Assessors' Department	10,878 98
Auditing Department	3,452 57
Bridge Department	13,770 77
Cemetery Department:—	
Current Expenses	16 814 85
New Gateway and Fence	2,712 82
Cemetery Fund	1,787 25
City Clerk's Department	5,988 32
City Messenger's Department	2,489 12
Civil Service Department	257 16
Clerk of Committee's Department	3,530 04
Election Expenses :—	
City Clerk	6,748 26
Registrars of Voters	3,944 44
Superintendent of Buildings	1,774 81
Engineering Department	9,689 85
Executive Department	4,606 56
Fire Department	60,708 67
Health Department	5,487 05
Incidental Expenses	10,716 26
Incidental Expenses, Park Commissioners	131 66
Inspection of Milk and Vinegar Department	1,241 53
Inspection of Wires Department	9,578 63
Interest	136,877 92
Lamp Department	66,495 32
Law Department	3,183 84
Loan :—	
City	150,000 00
Land	10,000 00
Paving	100.000 00
Street	13,000 00
Temporary	541,850 00
Overseers of the Poor :—	
Almshouse Department	22,713 51
Almshouse Fire Protection	2,020 33
Assistant City Physician--Salary	1,500 00
Farm and Ledge Department	7,680 93
House Offal Department	23,696 40
Outside Aid Department	42,201 59
Police Department :.-	
Current Expenses	108,270 65
Police Signal System, District One	3,845 00
Public Library Department	14,941 05
Public Property :—	
Care and Repair :—	
City Buildings	21,646 87
School Houses	43,849 76
Construction and Alteration:--	
New Engine House, Ward 1	5,541 42
New Engine House, Ward 3	10,506 18
New Engine House, Ward 4	15,199 91
New School House, Ward 2	12,580 48
Old High School House	1,483 45
Police Station, Ward 3	11,000 00
Putnam School House	670 00
Sanitary Arrangements School Houses	2,999 85
Wellington School House	11,940 15
Furniture and Furnishings :—	
Manual Training School	1,359 10
New High School House	770 26
Wellington School House	2,000 00
Incidentals	3,712 13
Land for Engine House, Ward 1	3,525 00
School Department :—	
Incidentals	1,648 49
Salaries	220,611 62
Text Books and Supplies	13,738 84
Sealer of Weights and Measures Department	1,615 43
Sewer Department :—	
Construction	24,323 90
Maintenance	17,951 61
Amount carried forward	$1,877,938 69

NOV. 29, 1893 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER.

Cr.

Receipts as follows:—	
Bridge Department	$ 752 68
Cemetery Department, Current Expenses	20,302 46
Cemetery Fund	1,787 25
City Clerk's Department	2,443 67
Commissioners of Sinking Funds	273,000 00
Fire Department	149 77
Incidental Expenses	1,070 06
Inspection of Milk and Vinegar Department	145 00
Inspection of Wires Department	1,813 74
Interest	6,655 53
Law Department	1,500 00
Loan:—	
Building	40,000 00
Harvard Bridge	10,000 00
Temporary	541,850 00
Water	150,000 00
Overseers of the Poor:—	
Almshouse Department	1,239 65
Farm and Ledge Department	12,227 38
House Offal Department	7,033 52
Outside Aid Department	4,381 33
Police Department, Current Expenses	5,890 41
Public Library Department	4,640 48
Public Property:—	
City Buildings	3,240 20
New Engine House, Ward 4	55 00
School Department:—	
Salaries	1,430 64
Text Books and Supplies	290 00
Sealer of Weights and Measures Department	366 99
Sewer Department:—	
Construction	18,528 26
Maintenance	1,603 81
State Aid Department	15,294 74
Stationery and Printing Department	800 50
Street Department:—	
Cleaning Streets	1,157 00
Collection of Ashes	1,173 45
Construction and Repairs	769 35
Extensions and Widenings:—	
Huron Street	1,302 00
Maintenance	35 00
Paving:—	
Edgestones and Sidewalks	16,702 30
Shade Trees and Public Grounds	44 35
Watering	15,031 65
Tax:—	
Corporation	69,354 25
National Bank	17,980 27
Tax Sale Surplus	123 95
Taxes:—	
1889	670 40
1890	168 28
1891	2,842 75
1892	121,451 45
1893	1,129,501 56
Treasury Department	1,664 91
Water Works Department:—	
Construction:—	
General Account	4,754 19
Fresh Pond Land Account	1,255 00
Fresh Pond Reservoir	300 00
Payson Park Reservoir	1,480 00
Interest on Loan	644 45
Maintenance	218 80
Rates, Fines, etc.:—	
Collections	248,347 20
Supplies	6,175 09
Total Receipts	$2,771,640 72
Cash balance in Treasury Nov. 30, 1892	190,509 72
	$2,962,150 44
Amount carried forward	$2,962,150 44

CITY OF CAMBRIDGE IN ACCOUNT CURRENT FROM DECEMBER 1ST, 1892, TO

Dr.

Amount brought forward	$1,877,938 69
Sinking Funds	$104,095 00
State Aid Department	25,586 26
Stationery and Printing Department	2,435 16
Street Department:—	
Bridges	7,774 45
Construciion and Maintenance, Belmont District	608 36
Cleaning Streets	20,969 67
Collection of Ashes	15,651 07
Construction and Repairs	69,002 91
Front Street Filling and Grading	2,395 21
Extensions and Widenings:—	
Front Street	6,963 67
Huron Street	8,840 16
Main Street	841 40
North Avenue	2,559 69
Maintenance	16,380 01
Paving:—	
Cambridge Street	8,748 95
Gore Street	9,999 49
Edgestones and Sidewalks	34,898 30
Western Avenue	10,956 33
Shade Trees and Public Grounds	7,122 22
Watering	20,712 99
Tax:—	
County	63,569 57
Metropolitan Sewer	17,363 62
National Bank	6.659 26
State	77,850 00
Tax Sale Surplus	151 94
Treasury Department	12,238 50
Water Works Department:—	
Construction:—	
General Account	51,149 76
Fresh Pond Land Account	62,620 97
Fresh Pond Reservoir	79,687 28
Payson Park Reservoir	35,733 98
Stony Brook Water Supply	1,993 27
Interest on Loan	77,925 00
Maintenance	48,223 48
Rates, Fines, etc.:—	
Abatements	3,131 65
Refunds	1,687 34
Supplies	5,303 07
Abatements	5 45
Sinking Funds	60,357 17
Total payments	$2,860.131 33
Cash balance in Treasury, November 29, 1893	102,019 11
	$2,962,150 44
Amount carried forward	$2,962,150 44

NOV. 29, 1893 (INCLUSIVE), WITH WM. W. DALLINGER, CITY TREASURER.

Cr.

Amount carried forward.....	$2,962,150 44
	$2,962,150 44

Sale of Bonds.

During the year the City Council has authorized and directed the issuance of the following loans, viz.: $100,000.00 of Water Loan four per cent. bonds dated February 1, 1893, payable February 1, 1913, also $50,000.00 of Water Loan four per cent. bonds dated August 1, 1893, payable August 1, 1913. For the payment of certain judgments against the city incurred in the building of Harvard Bridge and the avenue leading thereto bonds to the amount of $10,000.00 were authorized, dated August 1, 1893, payable August 1, 1923, bearing four per cent. interest; and for the payment of the construction of the two engine houses on Front street, and Lexington avenue bonds to the amount of $40,000.00 were authorized, dated November 1, 1893, payable November 1, 1903, bearing four per cent. interest. In conformity to the directions contained in the several orders, I sold the $100,000 of Water bonds, dated February 1, 1893, to Brewster, Cobb & Estabrook, of Boston, for $103.70, or par and a premium of three and seventy hundredths per cent. The $60,000.00, dated August 1, were sold—$45,000.00 to Andrew Robertson and $15,000.00 to the Cambridge Police Mutual Aid Association for a premium of two per cent. Of the $40,000.00, dated November 1, $30,000.00 were sold to the First National Bank of Cambridge at a premium of one per cent., while the remaining $10,000.00 were sold at par for the investment of a portion of our Cemetery Fund held by the City Treasurer in trust. Considering how unfavorable a large portion of the year has been for the advantageous selling of bonds, I think we may congratulate ourselves that in every sale to the general public a considerable premium has been obtained.

Very respectfully,

WM. W. DALLINGER,

City Treasurer.

REPORT

OF THE

COMMISSIONERS OF THE SINKING FUNDS OF THE CITY OF CAMBRIDGE.

To the Honorable the City Council :—

THE undersigned Commissioners of the Sinking Funds of the City herewith present their eighteenth annual report, covering the year ending November 30, 1893.

Dr.

The amount of the funds November 30, 1892	$772,280 01	
Amount received from the City of Cambridge as the annual appropriation required by law for 1893 . .	103,730 00	
Amount of interest received on invested funds . . .	32,550 78	
		$908,560 79

Cr.

Amount paid as accrued interest on investments purchased	1,467 80	
Amount paid as premium on investments purchased .	1,277 85	
Amount given to Treasurer of Cambridge to meet maturing bonds, viz. :—		
City Loan, five per cent. bonds, maturing Jan. 1, 1893	150,000 00	
Land Loan, six per cent. bonds, maturing July 1, 1893	10,000 00	
Paving Loan, six per cent. bonds, maturing July 1, 1893	100,000 00	
Street Loan, six per cent. bonds, maturing July 1, 1893	13,000 00	
Leaving the amount of the Funds Nov. 30, 1893 . .	632,815 14	
		$908 560 79

SECURITIES BELONGING TO THE SINKING FUNDS NOV. 30, 1893.

Cambridge Paving Loan, six per cent. bonds, due July 1, 1894	5,000 00
Cambridge Sewer Loan, six per cent. bonds, due Oct. 1, 1895	1,000 00
Amount carried forward	$6,000 00

Amount brought forward	$6,000 00	
Cambridge Sewer Loan, six per cent. bonds, due July 1, 1896	12,000 00	
Cambridge Street Widening Loan, six per cent. bonds, due July 1, 1904	90,000 00	
Cambridge Sewer Loan, six per cent. bonds, due July 1, 1904	2,000 00	
Cambridge Street Widening Loan, six per cent. bonds, due July 1, 1905	14,000 00	
Cambridge Sewer Loan, 6 per cent. bonds, due July 1, 1905	49,000 00	
		173,000 00
Boston & Maine R. R., seven per cent. bonds, due Jan. 1, 1894	1,000 00	
Town of Brookline, $3\frac{65}{100}$ per cent. bonds, due Feb. 1, 1894	7,000 00	
Old Colony R. R., seven per cent. bonds, due March 1, 1894	30,000 00	
Town of Brookline, four per cent. bonds, due July 1, 1894	3,000 00	
City of Keene, N. H., four per cent. bonds, due July 1, 1894	2,000 00	
City of Brockton, four per cent. bonds, due July 1, 1894	2,500 00	
Town of Hyde Park, four per cent. bonds, due Nov. 1, 1894	2,000 00	
City of Fitchburg, four per cent. bonds, due Nov. 1, 1894	3,500 00	
Town of Brookline, $3\frac{65}{100}$ per cent. bonds, due Feb. 1, 1895	1,000 00	
City of Brockton, four per cent. bonds, due July 1, 1895	2,500 00	
City of Keene, N. H., four per cent. bonds, due July 1, 1895	1,000 00	
City of Dayton, four per cent. bonds, due Oct. 1, 1895	7,000 00	
Town of Hyde Park, four per cent. bonds, due Nov. 1, 1895	2,000 00	
City of Dayton, four per cent. bonds, due Oct. 1, 1896 .	7,000 00	
Town of Hyde Park, four per cent. bonds, due Nov. 1, 1896	2,000 00	
City of Fitchburg, four per cent. bonds, due Nov. 1, 1896	2,000 00	
City of Waltham, four per cent. bonds, due Jan. 1, 1897	6,000 00	
City of New Bedford, 3½ registered bond, due April 1, 1897	15,000 00	
City of Dayton, four per cent. bonds, due Oct. 1, 1897	7,000 00	
Amounts carried forward	$103,500 00	$173,000 00

Amounts brought forward	$103,500 00	$173,000 00
Town of Hyde Park, four per cent. bonds, due Nov. 1, 1897	2,000 00	
City of Fitchburg, 3½ per cent. registered bond, due April 1, 1898	10,000 00	
City of Cleveland, four per cent. bonds, due Sept. 1, 1898	1,000 00	
City of Dayton, four per cent. bonds, due Oct. 1, 1898	4,000 00	
City of Providence, 4½ per cent. bonds, due June 1, 1899	64,000 00	
City of Cleveland, $3\frac{65}{100}$ per cent. bonds, due Sept. 1, 1902	1,000 00	
City of Lawrence, four per cent. bonds, due July 1, 1904	12,000 00	
City of Pawtucket, four per cent. bonds, due July 1, 1904	15,000 00	
Town of Hopkinton, four per cent. bonds, due Sept. 30, 1904	5,000 00	
City of Pawtucket, four per cent. bonds, due July 1, 1909	30,000 00	
Town of Beverly, four per cent. bonds, due July 1, 1911	9,000 00	
City of Brockton, 3½ per cent. bonds, due July 1, 1916	5,000 00	
		261,500 00
		$434,500 00
Cash balance deposited in National Banks on interest,		198,315 14
		$632,815 14

The bonded city debt which the foregoing sinking funds are to pay, matures as follows, viz: —

July 1, 1894, Paving Loan bonds, six per cent.	$130,000 00
April 1, 1895, Municipal Loan bonds, four per cent.	200,000 00
July 1, 1895, Paving Loan bonds, six per cent.	25,000 00
Oct. 1, 1895, Sewer Loan bonds, six per cent.	20,000 00
July 1, 1896, Sewer Loan bonds, six per cent.	29,000 00
Nov. 1, 1896, Sewer Loan bonds, six per cent.	25,000 00
Aug. 1, 1898, City Hall Land Loan bonds, four per cent.	83,000 00
Nov. 1, 1899, Street Widening Loan bonds, four per cent.	8,000 00
May 1, 1900, High School Loan bonds, four per cent.	100,000 00
Jan. 1, 1901, High School Loan bonds, four per cent.	100 000 00
July 1, 1901, High School Loan bonds, four per cent.	10,000 00
July 1, 1901, School House Loan bonds, four per cent.	50,000 00
July 1, 1901, Bridge Loan bonds, four per cent.	15,000 00
May 2, 1902, Street Loan bonds, four per cent.	55,000 00
May 2, 1902, Building Loan bonds, four per cent.	20,000 00
Nov. 1, 1902, Paving Loan bonds, four per cent.	50,000 00
Amount carried forward	$920,000 00

Amount brought forward	$920,000 00
Nov. 1, 1902, School House Loan bonds, four per cent.	20,000 00
July 1, 1903, Sewer Loan bonds, six per cent.	136,000 00
July 1, 1903, Street Widening Loan bonds, six per cent. . . .	10,000 00
Nov. 1, 1903, Building Loan bonds, four per cent.	40,000 00
July 1, 1904, Sewer Loan bonds, six per cent.	295,000 00
July 1, 1904, Street Widening Loan bonds, six per cent. . . .	90,000 00
July 1, 1905, Sewer Loan bonds, six per cent.	144,000 00
July 1, 1905, Street Widening Loan bonds, six per cent. . . .	14,000 00
Aug. 1, 1905, Cemetery Loan bond, four per cent.	65,000 00
Nov. 1, 1907, Sewer Loan bonds, four per cent.	30,000 00
Nov. 1, 1909, Sewer Loan bonds, four per cent.	22,000 00
May 1, 1910, Sewer Loan bonds, four per cent.	15,000 00
July 1, 1911, Sewer Loan bonds, four per cent.	15,000 00
Oct. 1, 1917, Harvard Bridge Loan bond, four per cent.	10,000 00
July 1, 1918, Harvard Bridge Loan bonds, four per cent. . . .	100,000 00
Sept. 1, 1918, Harvard Bridge Loan bonds, four per cent. . . .	50,000 00
Sept. 1, 1918, Harvard Bridge Loan bonds, four per cent. . . .	50,000 00
March 1, 1919, Harvard Bridge Loan bonds, four per cent. . . .	90,000 00
March 1, 1919, Harvard Bridge Loan bonds, four per cent. . . .	25,000 00
Nov. 1, 1920, Harvard Bridge Loan bond, four per cent. . . .	5,000 00
July 1, 1921, Harvard Bridge Loan bonds, four per cent. . . .	60,000 00
Aug. 1, 1923, Harvard Bridge Loan bonds, four per cent. . . .	10,000 00
	$2,216,000 00

CAMBRIDGE, Dec. 5, 1893.

To the Board of Commissioners of the Sinking Funds of the City of Cambridge:

Your committee appointed to audit the accounts of the Treasurer of the Funds respectfully reports that it finds his books well kept and his accounts carefully cast and properly vouched. His vouchers accurately show the amount of cash received during the year from taxation, interest and for matured bonds, and also the amount paid for redemption of City Debt and for bonds purchased for the Funds including accrued interest and premium. A careful computation of these items made independent of the Treasurer's books, prove that the present amount of the Funds as shown by his report is correct. The transactions of the Treasurer and Sub-Committee on investment during the year have been as follows:

Amount of Bonds in the Funds Nov. 30, 1892			$602,500 00
Amount of Bonds purchased during the year			70,000 00
			672,500 00
Amount of Bonds matured during the year			238,000 00
Amount of Bonds in the Funds, Nov. 30, 1893			$434,500 00
Cash on hand Nov. 30, 1892		$169,780 01	
Cash received from taxes		103,730 00	
Cash received for interest		32,550 78	
Cash received for matured bonds		238,000 00	
		$544,060 79	
Cash paid to redeem City Debt	$273,000 00		
Cash paid for Bonds purchased	70,000 00		
Cash paid for accrued interest	1,467 80		
Cash paid for premium on bonds	1,277 85	345,745 65	
Cash in bank on interest Nov. 30, 1893			198,315 14
Amount of Funds Nov. 30, 1893			$632 815 14

FRANK A. ALLEN,
JOHN C. BULLARD. } *Auditing Committee.*

During the year new City Bonds (four per cents) have been issued to the amount of $50,000, for the following purposes, viz.: Harvard Bridge Loan bonds (to complete the bridge), $10,000, dated August 1st, 1893, payable in thirty years; Building Loan bonds (in part for the construction of two engine houses in Wards One and Four), $40,000, dated November 1st, 1893, payable in ten years. There have matured since our last report city bonds to the amount of $150,000 five per cents, and $123,000 of six per cents, issued in 1863 and 1873, which amounts ($273,000) have been paid from this fund. The following represents the present condition of the funded city debt, viz.: The total amount of city debt now outstanding is $2,216,000, from which, deducting the present assets of the sinking fund at their par value, $632,815.14, leaves the net liability for bonded debt, November 30th, 1893 (exclusive of the water debt), $1,583,184.86, being a reduction of the debt for the year of $83,535.13. The net debt is now less than 2 1-8 per cent. of the valuation of the city. Since 1876, when the debt of the city reached its maximum, $2,543,000 of the debt has matured

and been paid from this fund, without in any case a renewal of the debt or a reissue of bonds. The valuation of the city, as returned by the Assessors for 1893, is $76,281,689, and shows an increase over 1892 of $2,041,594. There will be due the fund from taxation for 1894 the sum of $100,025.00.

It is with sincere regret that we have to record with this report the loss by death of our late esteemed associate, Joseph A. Holmes, who died March 3d, 1893. He was one of the oldest members in his term of service. We shall ever remember his cordial greeting, and would here cheerfully add our tribute of esteem and respect for his faithful and conscientious regard always for the best interests of his native city.

Respectfully submitted,

CHAS. H. SAUNDERS,
FRANK A. ALLEN,
A. J. LOVELL,
GEO. H. HOWARD,
JOHN C. BULLARD,
HENRY O. HOUGHTON,

Commissioners of the Sinking Funds of the City of Cambridge.

CAMBRIDGE, Dec. 11th, 1893.

REPORT

OF THE

TRUSTEES OF THE SINKING FUND OF THE CAMBRIDGE WATER WORKS.

To the Honorable the City Council:—

THE undersigned Trustees of the Sinking Fund of the Cambridge Water Works herewith submit their annual report of the fund committed by law to their charge.

Dr.

Amount of the fund November 30, 1892	$602,019 27	
Received during the year as follows:—		
From the treasurer of the City of Cambridge the annual appropriation from the water rates	59,902 50	
Also from the same source the surplus remaining at the close of the year in the maintainance accounts of the Water Works	454 67	
From interest on investments	26,006 52	
		$688,382 96

Cr.

Amount paid as accrued interest on investments purchased	438 50	
Amount paid as premium on investments purchased .	1,077 20	
Balance representing the amount of the Fund, November 30, 1893	686,867 26	
		$688,382 96

SECURITIES BELONGING TO THE SINKING FUND OF THE WATER WORKS, NOVEMBER 30, 1893.

Cambridge Water Loan, six per cent. bonds, maturing April 1, 1894 , ...	$6,000 00
Cambridge Water Loan, four per cent. bonds, maturing Nov. 1, 1894	6,000 00
Cambridge Water Loan, six per cent. bonds, maturing April 1, 1895	37,000 00
Cambridge Water Loan, 3½ per cent. registered bonds, maturing April 1, 1896	100,000 00
Amount carried forward	$149,000 00

Amount brought forward	$149,000 00	
Cambridge Water Loan, 3½ per cent. registered bonds, maturing July 1, 1896	75,000 00	
Cambridge Water Loan, six per cent. bonds, maturing July 1, 1896	66,000 00	
Cambridge Water Loan, six per cent. bonds. maturing July 1, 1897	16,000 00	
Cambridge Water Loan, five per cent. bonds, maturing July 1, 1898	12,500 00	
Cambridge Harvard Bridge Loan, four per cent. bond, maturing Nov. 1, 1920	5,000 00	
Cambridge Contingent Loan, four per cent. note, dated Dec. 1, 1883	200,000 00	
		$523,500 00
City of Boston, four per cent. bonds, maturing Jan. 1, 1899	$5,000 00	
City of Lynn, four per cent. bonds, maturing July 1, 1899	11,000 00	
City of Boston, four per cent. bonds, maturing April 1, 1900	4,000 00	
City of Cleveland, $3\frac{65}{100}$ per cent. bonds, maturing Sept. 1, 1902	3,000 00	
City of Providence, five per cent. bonds, maturing July 1, 1906	50,000 00	73,000 00
		596,500 00
Cash in bank on interest		90,367 26
		$686,867 26

The bonded water debt, which the foregoing fund is to pay, matures as follows, viz.:—

April 1, 1894, six per cent. coupon	$150,000 00
Nov. 1, 1894, four per cent. coupon	36,000 00
April 1, 1895, six per cent. coupon	160,000 00
April 1, 1896, 3½ per cent. registered (or to April 1, 1911) . . .	100,000 00
July 1, 1896, six per cent. coupon	103,000 00
July 1, 1896, 3½ per cent. registered (or to July 1, 1911)	75,000 00
July 1, 1897, six per cent. coupon	16,000 00
July 1, 1898, five per cent. registered	12,500 00
Nov. 1, 1903, 3½ per cent. registered	43,000 00
Oct. 1, 1907, four per cent. registered	75,000 00
Oct. 1, 1907, four per cent. registered	15,000 00
Nov. 1, 1907, four per cent. registered	22,000 00
July 1, 1908, four per cent. coupon	46,000 00
Aug. 1, 1908, four per cent coupon	25,000 00
Nov. 1, 1909, four per cent. coupon	20,000 00
Amount carried forward	$898,500 00

Amount carried forward	$898,500 00
May 1, 1910, four per cent. registered	133,000 00
May 1, 1910, four per cent. coupon	155,000 00
July 1, 1910, four per cent. coupon	75,000 00
Sept. 1, 1910, four per cent. coupon	125,000 00
Jan. 1, 1911, four per cent. coupon	20,000 00
Oct. 1, 1911, four per cent. coupon	35,000 00
Jan. 1, 1912, four per cent. coupon	150,000 00
May 2, 1912, four per cent. coupon	75,000 00
Nov. 1, 1912, four per cent. coupon	45,000 00
Feb. 1, 1913, four per cent. coupon	100,000 00
Aug. 1, 1913, four per cent. coupon	35,000 00
Aug. 1, 1913, four per cent. registered	15,000 00
	$1,861,500 00

WM. A. BANCROFT,
WM. W. DALLINGER,
J. HENRY RUSSELL,
} *Trustees of the Sinking Fund of the Cambridge Water Works.*

REPORT

OF THE

TRUSTEES OF THE DOWSE INSTITUTE.

CAMBRIDGE, Dec. 26, 1893.

To the Honorable City Council of Cambridge :—

THE Board of Trustees of the Dowse Institute respectfully reports that a course of five lectures, with two readings and a concert, was given in Union Hall, Cambridgeport, beginning Nov. 15, 1892, and ending Jan. 17, 1893.

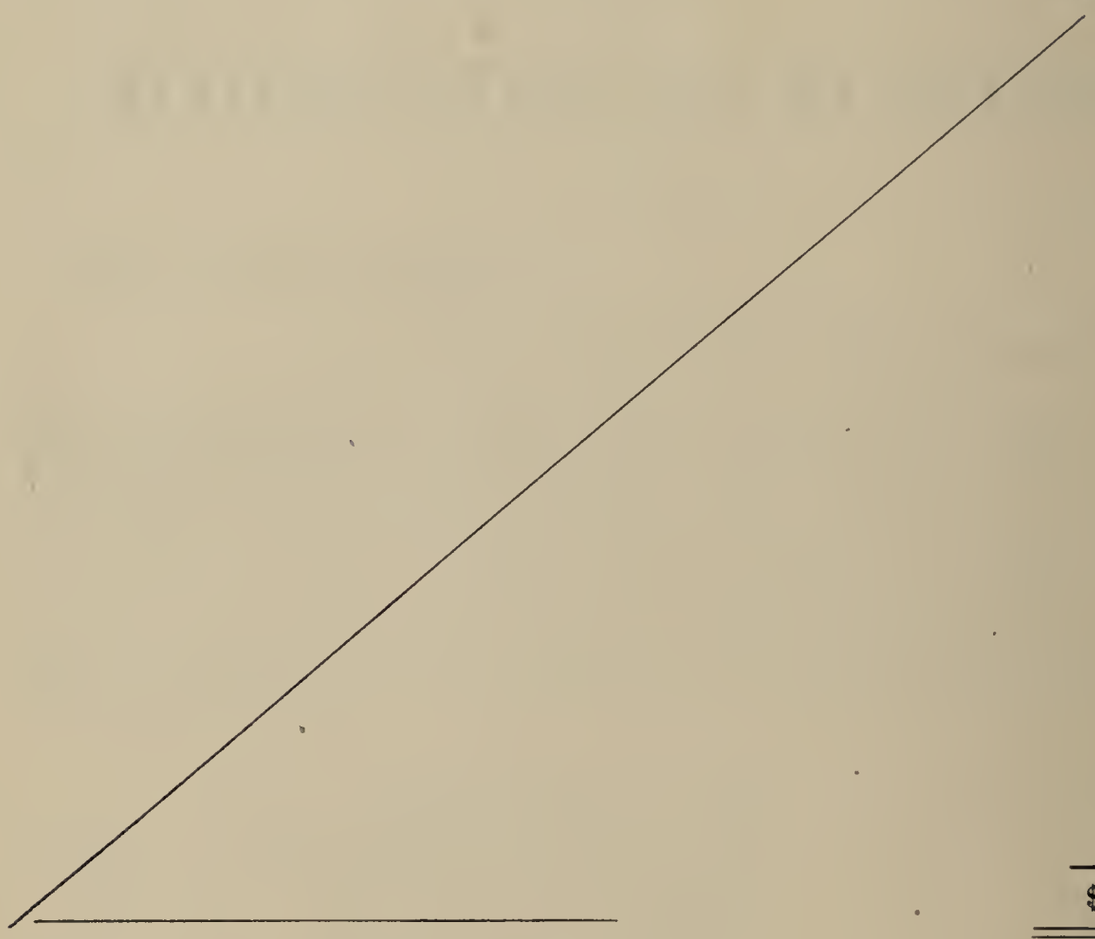
An attested copy of the accounts of the Treasurer is herewith transmitted, showing the amount of receipts and expenditures.

W. A. BULLARD,
W. W. WELLINGTON,
FRANK A. ALLEN,
WM. A. BANCROFT,
J. HENRY RUSSELL,
} *Board of Trustees.*

W. A. BULLARD, TREASURER, IN ACCOUNT WITH

Dr.

To Balance from last account , ...	$243 64	
City of Cambridge, one year's interest on fund .	600 00	
Tickets to the course of entertainments	949 25	
	———	$1,792 89



$1,792 89

THE DOWSE INSTITUTE.

	Cr.	
By amount paid :—		
George Riddle for a reading	$275 00	
John Fiske for a lecture	100 00	
Roberts Harper for a lecture	60 00	
Henry A. Clapp for a lecture	75 00	
H. G. Spaulding for a lecture	100 00	
Listemann Quartette for a concert	125 00	
J. W. Churchill for a reading	100 00	
A. A. Willets for a lecture	75 00	
For envelopes, stamped and addressed	21 90	
F. M. Buffum, distributing circulars	14 00	
E. W. Blake, distributing circulars	1 00	
George E. French, distributing circulars	3 90	
F. L. Beunke, distributing circulars	5 25	
Cambridge Tribune, advertising	20 00	
Cambridge Chronicle, advertising	25 00	
Cambridge Press, advertising	15 00	
Cambridge News, advertising	15 00	
John Ford & Son, for printing	36 50	
Charles L. Russell, doorkeeper	8 00	
F. M. Buffum, doorkeeper	8 00	
Albert P. Buffum, doorkeeper	8 00	
A. P. Bullard, ticket seller	8 00	
Union Hall Association, rent of hall	320 00	
		$1,419 55
Balance		373 34
		$1,792 89

ATTEST: W. A. BULLARD, *Treasurer.*

REPORT

OF THE

TRUSTEES OF THE BRIDGE CHARITABLE FUND.

THE seventeenth annual report of the Trustees of the Bridge Charitable Fund is herewith submitted:

The amount on deposit to the credit of the fund November 30, 1892 was		$2,378 34
Interest to July 19, 1893	$96 07	
Less two thirds payable to the Overseers of the Poor, under the terms of the bequest	64 05	
Balance one third of the interest added to fund . . .		32 02
Amount of fund as of July 19, 1893		$2,410 36

The Fund originated in a donation to the city of the sum of $773.95 by Levi Bridge, an aged citizen, who at one time, about the year 1813, was engaged in the shoe business at East Cambridge. He was a descendant of John Bridge, one of the founders of Cambridge, whose statue some years since was erected upon Cambridge Common. The sum before-mentioned was deposited with Hon. John Sargent, ex-Mayor of Cambridge, and held in trust by him for many years until the decease of Mr. Bridge, in the year 1875, when the amount of the deposit with its interest accumulations was paid over to the city. The amount thus paid over was $891.83. In the following year (1877), a sum equal to the amount donated by Levi Bridge was donated to the city by General Samuel J. Bridge, a relative of the former. The latter sum was added to the original fund by order of the City Council.

General Samuel J. Bridge, the donor of the latter sum of $891.83, died in Boston, November 6, 1893, in his 85th year

He was also the donor of the statue of John Bridge on Cambridge Common.

The net amount of the Bridge Charitable Fund is on deposit at the Cambridgeport Savings Bank, and the city Treasurer, who has it in charge, has complied with the terms of the gift by the payment of two-thirds of the annual interest to the Overseers of the Poor.

WM. A. BANCROFT,
JOHN R. FAIRBAIRN,
J. HENRY RUSSELL,
} *Trustees.*

REPORT

OF THE

TRUSTEES OF THE SANDERS TEMPERANCE FUND.

THIS Board herewith submits its twenty-eighth Annual Report.

The Sanders Temperance Fund is a legacy of the sum of $10,000.00 bequeathed by the will of Charles Sanders, a philanthropic citizen of Cambridge, who died in the year 1864. The purpose of this bequest is set forth in the following clause of the will: —

"ITEM — Believing as I do that drunkenness is a crime and likewise the origin of a large portion of the crimes, vices and misery which exist among us, I am desirous to do all in my power for its prevention and cure by establishing in Gloucester, the place of my ancestors, and Cambridge my present place of residence, a permanent salary to be paid to some worthy man in each place, who has discretion and zeal for the cause, to be constantly employed as a Missionary in the cause of temperance, in reforming old drunkards and preventing young drunkards, and abolishing as far as possible the use of all intoxicating articles.

I therefore give and bequeath to the Town of Gloucester the sum of Ten Thousand Dollars, ($10,000.00), and to the City of Cambridge a like sum of Ten Thousand Dollars ($10,000.00), to be held as permanent funds, the interest of which shall be paid quarterly as salaries to those persons employed for the above named purposes in those places as long as the vice of drunkenness exists."

In compliance with the terms of the bequest in reference to the appointment of a Missionary, the present board has continued in that service the venerable Alonzo Stewart, who has labored earnestly in this behalf and we believe with beneficial results for many years.

Increasing years have not slackened his activity in behalf of the good cause which has ever been dear to his heart. In his

own earnest and hopeful language he recites in a supplementary report, what he has done to promote the wishes of the donor of the fund, during the past year.

The fund is deposited with the City Treasurer and the interest is paid quarterly to the Missionary, in accordance with the intention of the donor.

WM. A. BANCROFT,
JOHN R. FAIRBAIRN,
J. HENRY RUSSELL,
} *Trustees.*

REPORT

OF THE

SANDERS TEMPERANCE FUND MISSIONARY.

To the Trustees of the Sanders Temperance Fund:

GENTLEMEN:—In accordance with your requirements I herewith submit my annual report.

I can present to your notice nothing new, and it may be, nothing especially encouraging; for year after year there are the same old foes to contend with and the same difficulties to overcome. Yet I feel sure that great good has been done and will ever be done through the agency of this fund.

It is accomplishing the work intended by the donor, slowly perhaps, but yet very effectually. Many homes have been made comfortable and happy, and many souls saved from the horrors of a drunkard's life and a drunkard's death.

It is a wonderfully encouraging thought in a work like this, that the world grows richer and better in every channel, not so much by magnificent schemes and tremendous efforts, as by patient, faithful, quiet work done in the name of the Master.

There are, and ever will be, discouraging features in every work of reform, and the results seem, to human eyes, very meagre compared with the efforts expended. The little polyp may well be discouraged when it sees how small must be its contribution to the coral world; yet it adds its *mite*, all that it has to add,—its life; and as the centuries pass, how stupendous are the results.

So have I tried to give my best energies to this work, but must leave the results to a Higher Power. I have conversed personally with 1738 persons brought before the court for drunkenness: have visited the jail and house of correction upon the Sabbath and have there distributed 93,450 pages of suitable read-

ing matter which I have solicited from various publishing houses in Boston, or have received from friends. I have met very many of the tried and tempted in my own home, and have endeavored to throw about them influences and safe-guards that will held them to a better life.

All of which is respectfully submitted,

ALONZO STEWART,

Sanders Temperance Fund Missionary.

REPORT

OF THE

OVERSEERS OF THE POOR.

CENTRAL SQUARE BUILDING,
CAMBRIDGEPORT, DEC. 28, 1893.

To the Honorable, the City Council of the City of Cambridge : —

GENTLEMEN :— The Overseers of the Poor herewith present their annual report for the year ending Nov. 30, 1893.

Under the provisions of the present City Charter the City Council in March last, re-elected Dr. Charles E. Vaughan for a term of five years. He has served continuously on the Board since its reorganization in May, 1877, and has been chairman of the Board since the Mayor ceased to hold that office ex-officio.

In our last report the Board emphasized the need of a fire-proof vault for the storage of its valuable records and documents. In the spring of this year the City Government caused to be built in the Central Square Building an adequate, substantial fire proof safety vault, and the Board desires to express its satisfaction with the work. It also appreciates the successful efforts of the Mayor in securing this depository.

The widespread depression of business throughout the country has been felt in our own city, and an apparent increase in the number of the dependent poor has been observed. This state of affairs has compelled the Overseers to meet a much larger demand for assistance to the poor and there has therefore been a corresponding increase in the expenditures for out-door relief. There is likely to be a still greater want during the coming winter.

In May last in response to the request of the Board the City Council appropriated the sum of twenty-five hundred dollars covering certain expenditures for alterations at the almshouse

which were intended to provide for the comfort of the inmates and their safety in case of fire. The improvements are now completed. The inmates have been classified anew so that more comfort has been obtained, the welfare of all has been largely increased and their greater safety in case of danger has been secured. These changes and alterations required the appropriation of the rooms occupied by the truants and it has become impracticable to care for this class longer at the almshouse. Since the new Middlesex County Truant School now building at Chelmsford will not be ready for occupancy for some months the Board recommended to the City Council a change in the Ordinance relating to truants so that they can be committed to the State Primary School at Monson in the interval prior to the completion of the County School.

Separate appropriations, including in the totals the estimated receipts, were made the past year by the City Council for the different branches of this department as follows: —

Outside aid	$34,500 00
Almshouse	22,000 00
Farm and ledge	8,000 00
House Offal	23,000 00
Additional appropriation for outside aid November, 1893	5,000 00
Additional appropriation for Almshouse fire protection, May, 1893	2,500 00
Assistant city physician salary	1,500 00

The following were the actual expenditures and receipts for the year: —

OUTSIDE AID.

Expenditures	$40,720 95
Receipts	4,381 33
Net cost	$36,339 62

ALMSHOUSE.

Expenditures	$21,774 97
Receipts	1,239 65
Net cost	$20,535 32

FARM AND LEDGE.

Expenditures	$7,665 28
Receipts	12,227 38
Net gain	$4,562 10

ASSISTANT CITY PHYSICIAN.

Expenditures	$1,500 00

HOUSE OFFAL.

Expenditures	$23,747 23
Receipts	7,033 52
Net cost	$16,713 71

The number of persons at institutions for whose support the city is liable has been as follows: —

City Almshouse	264
State Lunatic Hospitals	154
State Almshouse	2
Middlesex House of Correction	1
Massachusetts School for the Blind	1
Massachusetts School for Feeble Minded	15
	437
Number of insane in families	7
	444

The insane hospital cases include 13 at the Danvers Lunatic Hospital, 66 at the Worcester Lunatic Hospital, 21 at the Worcester Insane Asylum, 1 at the Taunton Lunatic Hospital, 1 at the Northampton Lunatic Hospital, 18 at the Westboro Lunatic Hospital, 14 at the Foxboro Dipsomaniac Hospital, 14 in the insane ward at the State Almshouse at Tewksbury, 6 in the insane ward at the State Farm at Bridgewater. One insane man and six insane women have been boarded out in families under the supervision of the State Board of Lunacy and Charity. There have been 27 mildly insane cases at the Almshouse in addition to the number at the lunatic hospitals supported by the city.

The amount paid to the State Lunatic Hospitals has been $18,372.45. The relatives of the insane and other persons sup-

ported by the city have paid $1,933.55 into the city treasury. Other cities and towns have reimbursed the city to the amount of $1,632.88 for aid rendered their poor living in Cambridge. The State Treasurer has paid $1,472.97 for the support of cases having no settlement which were aided from the office of the Board.

There have been 594 histories taken of new applicants for relief, and 30 histories have been revised, as appears from the report of the Visitor.

The Assistant City Physician has made 2358 visits upon 120 patients in the almshouse, and he has made also 2041 visits upon 628 patients outside of the institution, as is seen by his report.

There have been 264 inmates in the almshouse during the year and 121 remained upon November 30, as appears in the report of the Superintendent, together with other details relating to the house, truant school, farm, ledge and offal departments.

Five hundred and two families embracing 1506 persons have been aided from the office of the Board during the past year. Seventy-five of these families lived in Wards 1 and 5, 294 of them resided in Wards 2 and 4 and 133 of them lived in Ward 3.

RECAPITULATION.

Total expenditures for Outside Aid, Almshouse, Farm and Ledge	$70,161 20
Receipts for the same	17,848 36
Net cost of care of the poor	52,312 84

Respectfully submitted,

CHAS. E. VAUGHAN, *Chairman.*
CHARLES WALKER,
STEPHEN ANDERSON,
CHARLES BULLOCK,
WM. W. BURRAGE.

Overseers of the Poor.

REPORT

OF THE

SUPERINTENDENT OF THE ALMSHOUSE

CAMBRIDGE, Dec. 1, 1893.

To the Overseers of the Poor:—

GENTLEMEN: The annual report of the Almshouse for the year ending November 30, 1893, is herewith respectfully submitted.

The whole number in the Almshouse during the year has been as follows:—

Males	164
Females	100
Total	264
Adults	181
Minors	83
Whole number in the Almshouse, Nov. 30, 1893	121
Average number during the year	120

Included in the whole number in the Almshouse, November 30, 1893, there are:—

INSANE OR DEMENTED.

Males	5
Females	20
Total	25

IDIOTIC OR IMBECILE.

Males	2
Females	3
Total	5

EPILEPTIC.

Males	1
Females	2
Total	3

BLIND.

Males	5
Females	3
Total	8

Included in the whole number discharged during the year there are:—

To Carney Hospital	3
To State Home, Roxbury	1
To State Almshouse, Tewksbury	5

Remaining in the Almshouse, Nov. 30, 1893:—

Males	60
Females	61
Adults	106
Minors — Boys, 5; Girls, 10	15

Of the boys remaining Nov. 30, 1893, there are:—

Neglected children	4
Dependent children	1
Total	5

Of the girls remaining Nov. 30, 1893, there are:—

Neglected children	2
Dependent children	8
Total	10

The following tables will show the changes in population, the deaths, the farm products, and a comparison of financial receipts for thirteen years ending Nov. 30, 1893:—

Table I.

Showing the number and sex of adult persons and minors of all classes received into the Almshouse in each month of the year ending Nov. 30, 1893.

Months.	Adults.		Minors.		Total.	Dependent Children.		Neglected Children.		Truant Children.		Boarding Children.	
1892.	*M.*	*F.*	*M.*	*F.*		*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
December	7	3	4	2	16	3	2	0	0	1	0	0	0
1893.													
January	5	3	0	0	8	0	0	0	0	0	0	0	0
February	5	1	6	0	12	2	0	0	0	4	0	0	0
March	1	0	3	1	5	2	1	0	0	1	0	0	0
April	3	2	2	2	9	0	2	0	0	2	0	0	0
May	3	1	3	1	8	0	1	0	0	3	0	0	0
June	4	4	2	1	11	1	1	0	0	1	0	0	0
July	5	3	1	2	11	1	2	0	0	0	0	0	0
August	3	2	0	3	8	0	2	0	1	0	0	0	0
September	5	4	2	2	13	2	2	0	0	0	0	0	0
October	7	3	6	0	16	3	0	1	0	2	0	0	0
November	10	3	7	2	22	1	2	2	0	4	0	0	0
Totals	58	29	36	16	139	15	15	3	1	18	0	0	0

Table II.

Showing the number and sex of adult persons and minors of all classes discharged from the Almshouse in each month of the year ending Nov. 30, 1893.

Months.	Adults.		Minors.		Total.	Dependent Children.		Neglected Children.		Truant Children		Boarding Children.	
1892.	*M.*	*F.*	*M.*	*F.*		*M.*	*F.*	*M.*	*F.*	*M.*	*F.*	*M.*	*F.*
December.....	6	2	0	1	9	0	1	0	0	0	0	0	0
1893.													
January ....,....	2	1	2	1	6	2	1	0	0	0	0	0	0
February.....	4	2	2	0	8	1	1	0	0	0	0	0	0
March.....	7	3	3	2	15	3	2	0	0	0	0	0	0
April.....	10	2	4	1	17	0	1	0	0	2	0	2	0
May.....	3	4	1	1	9	0	1	0	0	1	0	0	0
June.....	4	3	3	0	10	1	0	0	0	2	0	0	0
July.....	5	2	4	3	14	2	3	0	0	2	0	0	0
August.....	4	2	6	2	14	0	2	0	0	6	0	0	0
September.....	1	1	16	1	19	1	1	1	0	14	0	0	0
October	1	2	7	1	11	4	1	1	0	2	0	0	0
November.....	2	2	7	0	11	1	0	2	0	4	0	0	0
Totals.....	49	26	55	13	143	15	14	4	0	33	0	2	0

Table III.

Showing the name, age, time of admission, date and cause of death of each person who has died in the Almshouse during the year ending Nov. 30, 1893.

Names.	Age.	Date of Admission.	Date of Death.	Cause of Death.
Daniel McElroy.....	76	Aug. 2, 1887	Dec. 20, 1892	Obscure liver disease.
Henry Zeigler.....	25	Oct. 5, 1888	Jan. 14, 1893	Apoplexy.
Charles Grandberg...	46	Jan. 9, 1893	Jan. 24, 1893	Heart disease.
Rosa O'Hara.....	82	Oct. 31, 1889	Feb. 27, 1893	Apoplexy.
Rosa Pryor.....	40	Oct. 14, 1892	Mar. 6, 1893	Consumption.
James H. Williams...	20	Aug. 14, 1891	Mar. 22, 1893	Consumption.
Mary J. Watts.....	42	Jan. 24, 1893	Mar. 31, 1893	Consumption.
Benjamin R. Fleet....	56	June 27, 1892	April 22, 1893	Bulbar paralysis.
Mary Muldoon.....	82	Oct. 1, 1881	April 24, 1893	Apoplexy.
Elijah A. Jackson....	49	Nov. 8, 1892	April 27, 1893	Unknown.
Charles W. Harris....	72	July 23, 1891	May 7, 1893	Chronic bronchitis.
Susan E. Daniels.....	70	May 2, 1893	May 8, 1893	Consumption.
Delia Price.....	39	June 7, 1893	July 4, 1893	Heart disease.
Emma A. Noonan.....	23	July 6, 1893	July 12, 1893	Pelvic abscess and intestinal hemorrhage.
InfantMcCarthy(male)	5 mos	Oct. 25, 1893	Nov. 14, 1893	Inanition.
Dennis O'Leary.....	55	Nov. 16, 1893	Nov. 28, 1893	Cirrhosis.

Products of the Farm.

260 bushels beans	$235 00
600 bushels beets	360 00
85 bushels beet greens	35 00
13,000 cabbages	650 00
180 bushels carrots	150 00
600 boxes celery	2,450 00
60 boxes celery plants	62 00
25,000 cucumbers	380 00
185 bushels dandelion greens	200 00
300 dozen green corn	30 00
3 tons hay, 2 tons straw	70 00
2,000 dozen lettuce	450 00
100 bushels onions	75 00
250 bushels parsnips	250 00
160 bushels peas	170 05
6,677 pounds pork	568 50
10 bushels peppers	13 50
80 bushels potatoes	80 00
400 dozen radishes	240 00
40 bushels rye	32 00
900 pounds rhubarb	20 00
150 bushels spinach	55 00
6 tons squash	120 00
900 bushels tomatoes	530 00
	$7,226 05

Comparative Table of Almshouse, Farm, Ledge, and House Offal Receipts for Thirteen Years ending Nov. 30, 1893.

Years.	Board.	Chair Shop.	Farm.	General Sales.	Stone.	House Offal.	Totals.
1881	$322 56	.....	$378 50	.....	$2,529 01	$5,536 88	$8,766 95
1882	705 34	.....	436 54	.....	2,626 17	5,705 22	9,473 27
1883	1,174 96	.....	476 22	$14 19	2,622 00	5,819 55	10,106 92
1884	1,480 93	.....	316 76	.....	4,238 77	6,449 96	12,486 42
1885	2,035 58	.....	335 32	149 85	4,509 84	7,354 36	14,384 95
1886	613 93	$37 50	772 14	319 75	5,611 38	6,926 23	14,280 93
1887	514 64	634 19	1,595 10	241 37	4,684 14	6,856 59	14,526 03
1888	557 28	614 94	2,846 52	213 62	6,662 26	6,721 50	17,617 06
1889	274 84	479 28	3,684 59	144 36	5,564 18	7,324 61	17,471 86
1890	302 49	794 36	4,364 03	150 89	5,651 38	7,386 33	18,649 48
1891	1,201 33	844 62	5,213 68	161 71	6,107 86	7,716 77	21,245 97
1892	1,253 06	899 81	5,371 60	166 45	5,220 50	7,535 57	20,447 05
1893	703 70	325 86	6,400 64	210 09	5,826 74	7,033 52	20,500 55
Totals	$11,140 64	$4,630 56	$32,191 64	$1,772 28	$61,854 23	$88,367 09	$199,956 44

Your board may well be congratulated upon the accomplishment during the past year of some most desirable changes and long contemplated improvements intimately connected with the safety, moral elevation and physical comfort of the people under your care. When my first report was made to your board eight years ago, there were fifty-five children in the Almshouse. At the present time there are but fifteen. There are four boys—neglected children who attend the public schools, and one imbecile boy who will soon, perhaps, be removed to an institution for the feeble-minded.

There are ten girls, but four of them are babes in arms and five are in the Almshouse with their mothers.

The great reduction in the number of children is due to the closing of the truant school in anticipation of the early opening of the county truant school, and to the operation of the statute which enjoins the removal of all pauper children over four years of age from the almshouses of the Commonwealth.

This change, while it destroys a very pleasant feature of our work, must be regarded as in every way desirable, according, as it does, with the best educational and philanthropic thought of the times. And our loss is the infinite gain of the children, whose prospects for useful and happy lives are immensely increased by removal to more healthy and uplifting influences and surroundings.

The matter of an increased water supply and the introduction of appliances for the better protection of the inmates from the danger of fire has for years given your board a good deal of anxious solicitude.

An appropriation made by the city government during the past year has enabled your board to carry out to a considerable extent your wishes in this regard. A ten-inch water main has been laid in North Avenue by the Water Board, which has been connected with the Almshouse supply at Tannery street, and the six-inch pipe has been conducted by your board into the Almshouse and connected with two four-inch stand pipes, with hose attached on each story of the bullding.

Tannery street, so long a "slough of despond," has been put in excellent condition, and is now a credit to the city.

In the redistribution of our people, made possible by the removal of the truant school, we have aimed at locating the sleeping rooms in the octagon, which affords greater safety and better means of ventilation. The school room has been made into sleeping rooms, and a new and pleasant assembly room has been made in the south wing.

The comfort of our people has been very greatly increased by the erection of sixteen new sleeping rooms. The insane women who formerly occupied the upper story of the north wing, which was approached by a single flight of wooden stairs, are now located in pleasant rooms on the first floor of the octagon, where they can have better supervision and more cheerful surroundings.

By reference to the comparative table of receipts, it will be seen that the farm shows a continued increase in productiveness from year to year. The past year gives the largest returns from the sale of farm products of any in our history.

The ledge has been profitably worked, and still offers employ-

ment for idle men who are anxious to support their families by their labor in times of business depression.

The chaplain and organist are deeply interested in their work, and labor zealously to make the Sunday services interesting and helpful.

The officers and employes of the institution deserve commendation for faithful and conscientious service.

Thanking your board for continued expressions of good will and for valuable aid in conducting the affairs of the institution, this report is respectfully submitted.

MARTIN L. ELDRIDGE,
Superintendent.

REPORT

OF THE

ASSISTANT CITY PHYSICIAN.

OFFICE OF THE ASSISTANT CITY PHYSICIAN,
CAMBRIDGE, Dec. 28, 1893.

To the Board of Overseers of the Poor:—

GENTLEMEN: I have the honor to present the following report of the doings of this office for the year ending November 30, 1893:—

Almshouse.

Number of visits to almshouse	203
Number of persons treated therein (males, 50; females, 40; boys, 25; girls, 5,)	120
Number of professional visits to same	2358
Number of chronic insane recommitted to insane asylums	0
Number of deaths occurring therein	16
Cost of medicines and surgical appliances	$375 21

Outside Aid.

Number of persons receiving professional service	740
Number of persons attended by direction of the Overseers of the Poor (men, 145; women, 251; boys, 119; girls, 113;	628
Number of professional visits to same	2041
Number of persons treated at Police Stations	63
Number of visits to same	71
Number of civil service examinations for the police force	30
Number of examinations for the fire department	19
Number examined relative to their sanity	68
Number of certificates of insanity issued (men, 37; women, 21)	58
Number attended in childbirth	13
Number of persons sent to hospitals for surgical and hospital care	16
Cost of medicines and surgical appliances	$426 05
Number of deaths occurring	25

Totals.

Total number of persons receiving professional service . .	860
Total number of visits to same	4470
Total amount expended for medicine and surgical appliances	$801 26
Total number of certificates of death issued, after investigation as to cause	79
Total amount expended in the care of "hospital cases" sent to Carney, Children's and Cambridge Hospitals . .	$731 01

Respectfully submitted,

LEWIS L. BRYANT,

Assistant City Physician.

CITY CLERK'S REPORT OF FEES AND LICENSES.

CAMBRIDGE, Dec. 1, 1893.

To the Honorable the City Council:—

THE undersigned herewith presents an account of the sums received for fees and licenses during the year ending Nov. 30, 1893: —

Auctioneers' licenses	$46 00
Pool and billiard table licenses	60 00
Wagons and Carriages	321 00
Intelligence offices	26 00
Junk licenses: Stores and Collectors	336 00
Pawnbrokers	4 00
Recording mortgages, assignments, etc.	583 17
Marriage certificates	425 50
Certified copies from the records	25 65
Dog licenses	421 40
Liquor licenses	49 00
Fireworks licenses	90 00
Minors' licenses and sundries	55 95
Total	$2,443 67

All of which has been paid into the City Treasury.

The receipts from dog licenses have been $5,079.00. Of this amount the clerk's fee (20 cents for each license issued), amounting to $421.40 is included in the above list of fees, and the balance, amounting to $4,657.60, has been paid to the County Treasurer.

Respectfully submitted,

WALTER W. PIKE,
City Clerk.

CITY TREASURER'S FEES.

CAMBRIDGE, December 1, 1893.

To the Honorable the City Council:—

DURING the year ending November 30, 1893, I received in fees the sum of $1,664.91 itemized as follows, viz.:—

Summonses to delinquent tax payers	$941 91
Preparing advertisements of sale	340 50
Advertisements	50 00
Posting notices of sale	147 50
Making collector's deeds	93 00
Affidavits made	92 00
	$1,664 91

The foregoing fees as received from day to day have been paid into the City Treasury.

Very respectfully,

WM. W. DALLINGER.
City Treasurer.

REPORT OF THE CITY MESSENGER.

CAMBRIDGE, Dec. 26, 1893.

To the Honorable the City Council:—

GENTLEMEN: In compliance with the ordinance relating to the purchase and delivery of stationery, the City Messenger has the honor to submit his annual report:—

Stock of stationery on hand December 1, 1892	$281 74
Purchased during the year	872 40
	$1,154 14

Delivered to heads of departments as follows: —

Street Department	$62 83
City Clerk's Department	104 57
Engineering Department	29 38
Clerk of Committees	74 65
Auditor's Department	63 34
City Messenger's Department	138 02
Treasurer's Department	39 34
Police Department	61 14
Lamp Department	4 88
Assessors' Department	90 57
Fire Department	3 48
Milk Department	11 25
City Missionary	3 02
Harbor Master	7 15
Superintendent of Public Buildings	11 72
State Aid Agent	5 46
Inspector of Wires	5 00
Law Department	31 55
Executive Department	53 52
Election Expenses	42 85
Sealer of Weights and Measures	8 78
Registrars of Voters	4 98
Park Commissioners	21 98
Stock of Stationery on hand	274 68
	$1,154 14

Respectfully submitted,

FRANCIS L. PRATT,

City Messenger.

REPORT

OF THE

TRUSTEES OF THE PUBLIC LIBRARY.

The annual report of the Trustees of the Cambridge Public Library will this year be accompanied by (1) The usual report of the Librarian; (2) a special report prepared by Miss Grace Reed, formerly one of our assistant librarians, on the collection of books in the Cambridge Memorial Room; (3) a report of the remarks of Dr. Morrill Wyman, in presenting to this institution (June 12, 1893) his remarkable medical collection. The addition of these documents renders brevity desirable in the main report.

The main operations of the library have proceeded as usual during the present year, but on a larger scale. The only new step of a marked character has been that of opening the library from 2 to 6 P. M. on Sundays, which began on the first Sunday in March. This step has proved acceptable to the public, as is shown by the following table of attendance for the four Sundays of March and the four of November, as recorded by Miss Hayward. It should be said that the especial thanks of the Trustees are due to the fidelity of this lady, who has been present nearly every Sunday, wishing personally to supervise the new arrangement, although it was the original purpose of the Trustees that the librarians and assistants should render this service on Sunday in turn.

Sunday Visitors.

	Students.	Readers of Books and Magazines.	Readers of Newspapers.	Children.	Visitors only.	Total.
May (1893) 5.....	3	22	8		31	64
14.....	3	19	17	45	19	103
21.....	3	16	3	5	15	42
28.....	4	20	8	36	9	74
						283 Av'ge, 70¾
Nov. (1893) 7	5	37	20	33	18	116
12.....	7	50	30	21	13	121
19.....	3	30	15	59	12	119
26.....	2	25	10	66	7	110
						466 Av'ge, 116½

The most important donation received by the Library during the year has been that of Edward W. Hooper, Esq.,of Cambridge, who had previously been a liberal subscriber to the Citizens' Subscription Fund. Being charged with the distribution of the large library of the late Prof. E. W. Gurney, the bulk of which went to public institutions and to private friends, he offered to the Cambridge Public Library the selection of five hundred volumes from the residue of the Gurney Library, with the alternative of receiving a dollar in money for every volume not selected. As a result, the Trustees of the Public Library chose one hundred and ten volumes and received $390 to be expended at their discretion. This is now being expended by degrees, mainly for books in the French language and sets of periodicals. By Mr. Hooper's request, all the books thus received (directly or indirectly) are credited to the heirs of Prof. E. W. Gurney, and there have been received, up to the present time, three hundred and seventy-three. This includes some thirty volumes received indirectly from the same source, through the Harvard College Library.

There have also been received from the heirs of the late Rev. Andrew P. Peabody, D. D., nearly a hundred volumes selected from his library by our librarian.

The arrangement and classification of Dr. Wyman's medical library—mentioned in last year's report as having been received —was effected during the summer; and a regular card catalogue has now been begun. It is the desire of the Trustees to

make this collection useful to students of medical science, not only in Cambridge but elsewhere, within proper limits and restrictions, as it contains many works not easily accessible.

Plans have been drawn and a contract concluded for the addition to the Library building, for which the City Government appropriated $20,000; and work upon it will be commenced as early as practicable in the spring of 1894.

The Trustees would call especial attention to the list of books by Cambridge authors in the "Cambridge Memorial Room," and would gladly receive further aid in their efforts to make this collection complete. It should contain every important edition of every work by every author born or resident in this city; and if this be accompanied by autographs, photographs or manuscript notes, so much the better. It should be our aim so to extend the collection that no person can hereafter undertake to edit or describe any Cambridge author without coming to us for additional materials. The Trustees would also invite the temporary deposit of other bibliographical or biographical material of this kind, or of any articles or collections bearing on the history of Cambridge.

The Trustees desire to place on record their appreciation of the continuous and faithful service of Mr. Andrew J. Ayers, who has been janitor of the library from the day of its removal to the present building up to the time of his death. He was in the highest degree faithful and trustworthy, and his long service in the U. S. Navy had given him an admirable standard of neatness and order. His place has not yet been filled.

In conclusion, the Trustees would cordially thank the City Government for its generous support of the library; and pledge themselves anew to administer it for the best good of all.

For the Trustees,

THOMAS WENTWORTH HIGGINSON.

December, 1893.

REPORT

OF

THE LIBRARIAN.

To the Trustees of the Cambridge Public Library.

GENTLEMEN:—The Librarian herewith submits her twentieth annual report. The prosperity of the library continues to afford cause for congratulation while the increase of its use calls for its constant growth in efficiency as well as in a wise selection of accessions. The plans for the new children's reading-room and administration rooms are well matured and the actual work of enlargement will begin as early in the spring as possible. The crowded state of the present reading-room at certain hours, will be prevented when the children are provided with a separate room. If it should be thought wise to remove the juvenile literature from the stack and shelve it in this room, it will afford more room in the stack, which will soon be greatly needed, and will also relieve the delivery room from the presence of the children.

Early in the year the question of opening the library on Sunday was considered and it was decided to open it from two o'clock to six. The attendance has been carefully noted and will be shown by the table included in the Trustees' Report. Those under fourteen years of age are classed as children, and their attendance has been large, making with the visitors, more than one-half the total number of readers. Visitors have been allowed to consult any book, and a case containing a selection of new and popular books has also been placed in the reading-room. The attendance is increasing since the summer months. The Sunday opening began with the month of May and as our year closes with November, the statistics are for only seven months.

Sunday Use of the Library (seven months).

Adults Studying.	Adults reading books or magazines.	Children reading or looking at pictures.	Adults reading Sunday and other papers.	Visitors not readers.	Total.
45	467	687	235	320	1,754

The school use of the library continues to draw largely on our supply of good books for the young. During the coming year it would be wise to duplicate many of these, and if possible obtain some general expression from the teachers as to what books they have found most helpful.

We seldom duplicate beyond five copies of any book, while the Worcester public library often has twenty-five copies of such books, as are most used in the schools.

The enlargement of the courses of study in the public schools increases the demand on the library, and we cannot afford not to meet this with a generous supply of choice books on elementary science and helps in teaching English and history. The librarian hopes by the new arrangement of rooms to be more accessible and so more helpful to both teachers and pupils. The educational use of the library is one of its strongest holds upon the affection and generosity of our citizens. "By the people and for the people" may well be our future motto.

The rapid growth of the library since it was established in its "house beautiful" has made it necessary to decide upon a public card catalogue of the whole library. This will probably be type-written, at least to about the present time. In future we may decide upon adopting the printed cards to be issued by the Library Bureau. In this labor-saving age there is a tendency among libraries towards co-operation, and catalogue work is beginning to feel the effect of this. Whatever will give the library force more leisure from this work will leave time for preparing special lists for the public.

The circulation of books for the past year is shown by the following statistics:—

Circulation.

	Central.	Local.	Schools.	Total.
First Quarter	25,663	5,802	2,173	33,638
Second Quarter	25,576	6,685	2,027	34,288
Third Quarter	19,572	4,928	271	24,771
Fourth Quarter	24,317	5,088	2,002	31,407
Total	95,128	22,503	6,473	124,104

Average per day (Central).....309
Average per day (Local and Schools).....126

The largest issue for any day from the local delivery (May 6) was 280; the largest issue for any day from the school delivery (May 11) was 180; the largest issue for any day from the Central library (Feb. 11) was 655.

Since May a record has been kept of the books drawn from the stack for reference in the reading-room, the number has been 2215. Many of the teachers in our public and private schools have drawn books directly from the library which accounts for the apparent decrease in the number sent to the schools. The teachers have taken from the library directly, 773 books. During the year seventeen books have been lost, these being chiefly works of fiction. Every effort has been made to trace the borrowers who have moved and left no clue.

Classified Circulation.

	Fiction.	Juvenile Literature.	Biography.	Miscellany.	History.	Poetry.	Science and Art.	Travels.	Bound Magazines.	Current Magazines.	Foreign Literature.	Total for Year.
Central Library	42,538	21,979	4,424	6,595	4,278	1,856	6,320	3,098	546	2,314	1,180	95,128
Local and Schools	13,752	8,327	1,149	422	1,456	295	1,159	1,812	162	400	42	28,976
Total	56,290	30,306	5,573	7,017	5,734	2,151	7,479	4 910	708	2,714	1,222	124,104
Per cent.	.45	.24	.045	.06	.05	.02	.06	.04	.005	.02	.01	

School Delivery.

Name of School.	Allston.	Corlett.	Harvard.	Morse.	Peabody.	Putnam.	Shepard.	Thorndike.	Washington.	Webster.	Wellington.	Latin High.	Total.
Books Delivered.....	932	122	426	344	666	487	887	692	993	530	262	132	6473

Local Delivery.

Stations.	Belmont District.	North Cambridge.	East Cambridge.	Cambridgeport.	Lower Port.	Ward Four.	Total.
Books.....	2,511	5,848	4,610	3,785	2,482	3,267	22,503

Additions.

Source.	City Appropriations.	Citizens' Subscription Fund.	Income of Cummings Fund.	Given.	Bound Periodicals.	Total.
Books.....	2,580	71	3	718	66	3,438

A list of the donors accompanies this report as Appendix A.

The medical library contains 3,944 books and 211 boxes of pamphlets not yet counted. The formal presentation of the medical library occurred June 12, 1893.

Estimated number of volumes in the general library	40,079
Estimated number of volumes in the Wyman Medical Library .	3,944
Total	44,023

Number of books bound or repaired	3,660
Number of books covered or labelled	18,976
Number of postals sent for books overdue	5,358
Number of new cards issued	2,600
Present number of card holders	16,365

The following amounts have been received for fines and

catalogues. The city treasurer's receipts for these sums have accompanied the quarterly reports.

	Fines.	Catalogues.	Total.
First quarter	$124 03	.....	$124 03
Second quarter	100 20	$11 90	112 10
Third quarter	79 58	1 90	81 48
Fourth quarter	91 00	3 00	94 00
	$394 81	$16 80	$411 61

All of which is respectfully submitted

ALMIRA L. HAYWARD,
Librarian.

APPENDIX A.

List of Donors of Bound Volumes.

C. W. Adams	1
J. F. Aldrich	1
Rev. J. H. Allen	1
Austin Street Church S. S.	1
Albert M. Barnes duplicate government publications and	21
Mrs. A. C. Beckwith	25
C. K. Bolton	4
Mrs. S. K. Bolton	1
Boston Record Commission	1
Miss L. D. Bullard	1
Bureau of American Republics	4
City of Cambridge	1
Dr. E. A. Carpenter	1
Dr. H. L. Chase	3
Dr. E. R. Cogswell	11
D. P. Corey	2
Andrew Cutting	1
S. H. Dudley	1
W. P. Dudley	1
F. A. Foster, 4 duplicates and	34
Arthur Gilman	1
Prof. E. W. Gurney's heirs	378
Miss L. G. Hanks	1
Frank Harrington	1
Harvard University	1
Col. T. W. Higginson	20
Frederic Stanhope Hill	1
Hon. N. P. Hlll	1
Hon. Sherman Hoar	2
Miss Cornelia Horsford	1
Miss J. H. Irving	2
C. W. Kingsley	1
Dr. B. O. Kinnear	1
S. P. Langley	1
Miss M. E. Litchfield	5
Chas. J. McIntire	2
Mrs. M. E. Mac Kaye	1
Maine State Board of Health	1
Commonwealth of Massachusetts	14
Massachusetts Mechanics Association	1

Metropolitan Park Commission	1
Wm. J. Marvin	1
Mexican Central R. R.	1
Miss Emma Munroe	1
Museum of Comparative Anatomy	1
New Bedford Free Library	1
Prof. C. E. Norton	2
Miss Palfrey	1
Dr. A. P. Peabody's heirs	95
W. A. Preble, Jr.	1
Pettingill & Co.	1
G. B. Reed	1
Stephen Salisbury	1
Scranton Public Library	1
H. P. Smith	1
Mrs. E. B. Tower	1
United States	43
Unknown	2
Adolph Vogl	6
C. H. Warner	1
Greenough White	1
Winchester Public Library	1
Rev. T. F. Wright	1
	718

CAMBRIDGE AUTHORS.

Works by Cambridge Authors to be Found in the Cambridge Memorial Library.

The following is the list of Cambridge authors, with the number of volumes relating to each, contained in the Cambridge room at the Cambridge Public Library; this includes only volumes in the Memorial Library; in many cases there are duplicates or other works in the general library: —

Abbott, Edward, 2.
Adams, John Quincy, 2, 1 pamphlet.
Adams, Oscar Fay, 2.
Agassiz, Alexander, 2.
Agassiz, Jean Louis Rodolphe, 5.
Agassiz, Mrs. E. C., 1.
Albro, John A., 1, 1 pamphlet.
Aldrich, Thomas Bailey, 6.
Alguno, Senor, 1.
Allen, Alexander V. G., 1.
Allston, Washington, 3.
Bachi, Pietro, 2.
Batchelder, Samuel, 1.
Bec , Charles, 9.
Billings, John D., 2.
Bolton, Charles Knowles, 2.
Bolton, Sarah K., 2.
Bond, George Phillips, 1.
Bond, William Cranch, 1.
Bowen, Francis, 7.
Bradbury, William F., 10.
Briggs, George W., 1.
Brooks, Mrs. Sarah arner, 2.
Chase, Reginald H., 1.

Clark, Susie C., 4.
Cogswell, Francis, 1.
Cranch, Christopher Pearse, 1.
Crook, Mrs. Harriet Booth, 1.
Cushing, William, 2.
Dana, Richard Henry, 5.
Dana, Richard Henry, Jr., 1.
Deane, Charles, 1 pamphlet.
Devens, Charles, 1.
Dix, William Giles, 2.
Dudley, Sanford H., 1.
Dudley, Thomas, 1.
Elliott, Charles Wyllys, 1.
Emerson, Ralph Waldo, 17, 2 pamphlets.
Everett, Charles C., 1.
Everett, Edward, 2, 4 pamphlets.
Farlow, William Gibson, 1.
Farrar, John, 1.
Felton, Cornelius Conway, 7, 1 pamphlet.
Felton, John Brooks, 1.
Follen, Charles Theodore Christian, 5.
Follen, Eliza L., 5.
Folsom, Charles, 1.
Foxcroft, Francis A., 1 pamphlet.
Francis, Convers, 1.
Frisbee, Levi, 1, 1 pamphlet.
Garman, Samuel, 2, 13 pamphlets.
Gilman, Arthur, 1.
Goodwin, William Watson, 2.
Gray, Asa, 1.
Green, James D., 1.
Hanks, Stedman W., 1.
Harris, William Thaddeus, 1.
Haskins, David G., 1.
Hayward, Almira L., 2.
Hedge, Frederic Henry, 3.
Hedge, Levi, 2.
Higginson, Mary T., 1. [pamphlets.
Higginson, Thomas Wentworth, 19, 15
Hildreth, Emily E., 1.
Hill, Frederic Stanhope, 2.
Hill, Thomas, 2,
Holmes, Abiel, 1 pamphlet.
Holmes, Oliver Wendell, 18, 2 pamphlets.
Horsford, Cornelia, 1.
Horsford, Eben Norton, 16.
Howells, William Dean, 11.
Irving, Jennie Hamilton, 1.
Jacobs, Justin A., 1 pamphlet.
Jacobs, Sarah S., 1.
James, Henry, 1.
James, William, 3.
Kelly, Amasa S., 1.
Lane, George Martin, 1.
Lawrence, William, 2 pamphlets.
Livermore, George, 1.
Longfellow, Henry W., 79.
Lovering, Joseph, 1.
Lowell, James Russell, 30.
Lowell, Robert Traile Spence, 3.
MacKaye, Maria Ellery, 2.
McKenzie, Alexander, 6.
Marcy, Henry O., 4, 20 pamphlets.
Morris, Judah, 1.
Munroe, Charles E., 1.
Muzzey, Artemus Bowers, 17.
Nancrede, Joseph, 1.
Newell, William, 1, 1 pamphlet.
Nichols, Ichabod, 1.
Norton, Andrew, 7.
Norton, Charles E., 12.
Nuttall, Thomas, 1.
Oliver, James, 1.
Olson, Julius E., 1.
Orne, Caroline F., 2.
Ossoli, Margaret Fuller, 4, 1 pamphlet.
Paige, Lucius R., 8.
Palfrey, John Gorham, 4, 1 pamphlet.
Palfrey, Sarah Hammond, 3.
Parker, Joel, 2.
Parsons, Theophilus, 1.
Peabody, Andrew Preston, 2.
Peabody, Elizabeth Palmer, 2.
Peirce, Benjamin, 1.
Pofkin, John Snelling, 3, 1 pamphlet.
Porter, Linn Boyd, 2.
Putman, Allen, 1.
Quincy, Josiah, Jr., 1.
Quincy, Josiah, 1, 1 pamphlet.
Quincy, Josiah Phillips, 8.
Reed, Helen L., 1.
Rogé, Charlotte Fiske Bates, 3.
Rogers, Samuel, 1.
Rolfe, William James, 59.
Russell, William, E., 1 pamphlet.
Sales, Francis, 1.
Seymour, Almira, 1.
Shepard, Thomas, 4.
Sibley, John Langdon, 1.
Smith, Huntington Porter, 1.
Spalding, James Field, 1.
Sparks, Jared, 2, 1 pamphlet.
Stearns, William, 1 pamphlet,
Stearns, Winfred A., 1, 26 papers.
Story, Joseph, 2, 1 pamphlet.
Story, William Wetmore, 10.
Thayer, James Bradley, 1.
Thayer, William Roscoe, 3.

Tuckerman, Edward, 1 pamphlet.
Walker, James, 1 pamphlet.
Walker, Timothy, 1 pamphlet.
Ware, Henry, Jr., 9.
Ware, John, 1.
Ware, John F. W., 2 pamphlets.
Ware, William, 4, 1 pamphlet.
Washburn, Emory, 1.
Waterhouse, Benjamin, 1.
Wayland, Francis, Jr., 1.
Webster, John White, 2.
Wellington, Mrs. Carrie L. Fisher, 1.
Whitney, William H., 1.
Whittemore, Thomas, 2.
Willard, Sidney, 1.
Winsor, Justin, 2, 5 pamphlets.
Winter, William, 2.
Winthrop, John, 1.
Wright, Chauncy, 1.

Not included in this list are sixteen volumes and five pamphlets relating especially to the City of Cambridge, with sixty-seven books, and two hundred and sixteen pamphlets relating to Harvard University, including many publications of the Museum of Comparative Zoölogy, copies of the Harvard University Bulletin and Catalogue, and Bibliographical Contributions edited by Justin Winsor.

Of the seventy-nine volumes relating to Henry W. Longfellow in the Cambridge room, six are biographical works; three volumes of selections from his writings; two travesties of "Hiawatha," and the remaining seventy are his own works. Of this number sixty-three are in English. Among these are the first edition of "Hyperion," New York, 1839; the first edition of "The Divine Tragedy," Boston, 1871; the second edition of "Evangeline," Boston, 1848; the second edition of "Voices of the Night," Cambridge, 1840, the ninth edition of the same, 1844; and one of the two editions of "Poets and Poetry of Europe," printed in 1845, (Philadelphia, 1845). There are also included six editions published in England; the earliest of these being "Prose Works," "Hyperion" and "Kavanagh" and "Voices of the Night," the "Seaside and the Fireside," London, 1832. The latter under the title, "The Seaside, the Fireside and Other Poems," was published the same year in Halifax. Also in Dürr's collection of standard American and British Authors, are two volumes of his works: Vol. I., "Poems," Leipzig, 1865, and Vol. II., "The Spanish Student," "Evangeline" and "The Golden Legend," Leipzig, 1867. The works in foreign languages include one in French, "The Golden Legend," Paris, 1867, and six in German, "Hiawatha," Siuttgart and Auesburg, 1857, and Berlin, 1857; "Collected Poems" in two volumes, Leipzig, 1865 and 1867; and another collection, Hamburg and Leipzig, 1868; "Pandora" 1878, and "Evangeline" in English, with notes, introduction, and sketch of the life of Longfellow in German, Berlin, 1885.

There are eighteen volumes relating to Oliver Wendell Holmes; among these are his first collection of poems (anonymous), "The Harbinger," Boston, 1833; the first edition of his collected "Poems," Boston and New York, 1836; an English edition of the same poems with nine additional poems and a short memoir of the author, London, 1846; and "Elsie Venner" in Dürr's collection of standard American and British authors, Leipzig.

Among the thirty volumes relating to James Russell Lowell are the first editions of "Conversations on Some of the Old Poets," Cambridge, 1845; "The Biglow Papers," Cambridge, 1848; "A Fable for Critics," New York, 1848; "The Vision of Sir Launfal," Cambridge, 1848; and collected "Poems" in two volumes, Boston, 1849. There are also two English editions of "The Biglow Papers," and one of "Fireside Travels" (1864). There is also a portfolio containing cuttings from the newspaper, being Lowell Institute Lectures on English Poetry by James Russell Lowell, reprinted in the *Boston Daily Advertiser*. There are twelve lectures, continuing from January 9, 1855, to February 16, 1855. "Worcester's Dictionary," interleaved by James Russell Lowell, with the names and date, James Russell Lowell, Elmwood, November 24, 1847, and many manuscript notes by him. "The Celebration of the Hundredth Anniversary of the Birth of Robert Burns by the Boston Burns Club, January 25, 1859," contains a speech by Ralph Waldo Emerson, a poem by Oliver Wendell Holmes and one by James Russell Lowell.

There are four volumes of the works of Rev. Thomas Shepard, the first minister of Cambridge. These are "Parable of the Ten Virgins Opened and Applied, being the Subject of divers Sermons by Thomas Shepard, late Worthy and Faithful Pastor of the Church of Christ at Cambridge, in New England," London, 1660. This is the first edition, there is another edition, "Reprinted and Carefully Corrected," 1695, no place of publication being given. Two copies of "Theses Sabbaticæ, or The Doctrine of the Sabbath," London, 1655; both of these copies include "Certain Cases resolved tending to the Right Ordering of the Heart;" but only one copy contains "The First Principles of the Oracles of God," not included in any other copy of "The Doctrine of the Sabbath."

A few books of special interest may be mentioned: "Young Folks' History of the United States," by Thomas Wentworth Higginson, printed in raised letters for the blind by the Howe Memorial press, Perkins Institution, Massachusetts School for the Blind, Boston, 1881; two portfolios of Margaret Fuller Ossoli's letters and manuscripts deposited by Thomas Wentworth Higginson; "Letters given by the English Longfellow Memorial committee to the Longfellow Memorial association of Cambridge," deposited by the Longfellow Memorial association. This book contains the autographs of distinguished Englishmen interested in obtaining the bust of Mr. Longfellow which was placed in Westminster Abbey.

There are also the following: "Cambridge Light Infantry Orderly Book," (Ms.) 1815, deposited in the Memorial room by Lucius R. Paige. Mr. Paige also presented to the Memorial library "Military Papers of 1761 and 1778." "Washington Home Guard in the Rebellion," (Ms.) Placed in care of the Cambridge Public Library by the secretary of the organization, Franklin Perrin, with a letter containing a short history of

the guard.* "Facsimile of accounts, G. Washington with the United States, commencing June, 1775, and ending June, 1783," containing entries in connection with his residence in Cambridge. A portfolio, containing photographs of Emerson; his "Nature" printed in the United States Magazine and Democratic Review, February, 1838, and a bibliography in manuscript of first editions of his works. "A Platform of Church Discipline, agreed upon by the Elders and Messengers of the Churches assembled in the Synod at Cambridge in New England," bound with other publications. London, 1722.

GRACE REED.

(From the Cambridge Tribune, June 17, 1893.)

DR. WYMAN'S GIFT.

On last Monday evening the Cambridge Public Library was presented with the medical library formerly belonging to Professor Tiedemann of Heidelberg, Germany, by Dr. Morrill Wyman, together with a great many books that the doctor has added to it. The library was much coveted by the Boston Medical Library, but Dr. Wyman preferred to

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*In connection with this, Mr. Franklin Perrin writes to the librarian as follows:

CAMBRIDGE, September 10, 1893.

My Dear Miss Hayward—In accordance with a suggestion which has been made to me, as secretary of the old military organization which was first known as the Washington Home Guard and then as the Twelfth Massachusetts Unattached, I would like to place in the care of the Cambridge Public Library the rosters of the above companies for safe keeping.

In the early days of the great Rebellion about all the State militia had responded to President Lincoln's call for troops for the protection of Washington, hence the police were the only protection left in Cambridge, and therefore the Washington Home Guard was formed to aid the police in case of any serious disturbance.

The guard was joined by many young men (who were intending to enter the army) to get the benefit of the evening drill before they enlisted, which accounts for their short stay in the company and for the great number of enlistments. It sent to the war, largely from its own ranks, Company A of the Forty-seventh Regiment.

At the time of the draft riots, the company guarded the State arsenal in Cambridge at the request of Governor Andrew.

Early in May, 1864, Governor Andrew ordered the company to reorganize under the name of the "Twelfth Unattached," and to go into camp at Readville.

While there, Dr. Beck who was a private, was rejected by the United States surgeon, on account of his age. No entreaties on the part of Dr. Beck or Captain Walcott would prevail with the sergeant to pass him. The company escorted Dr. Beck to the depot, where, in tears, he bade his comrades good-bye and took the train for Boston.

From Readville the company was sent to garrison the fort of earthworks at Provincetown. While engaged in this duty, Captain Walcott, at the request of the members, offered the company to the governor, for active service at the front and preparations were made for its departure; but the parents of some of the collegians who were in the ranks prevailed upon the governor to retain the company at Provincetown.

The Guard began to drill in January, 1862, and the Twelfth Unattached was disbanded August 15, 1864. A drill-room was erected for its use in the rear of Lyceum Hall.

have it remain in Cambridge, and the books will be placed in what is now the reading room.

A large number of medical men attended the presentation. The exercises were of an interesting nature, Dr. Wyman's speech, which is here given in full, being of particular interest. President A. M. Barnes of the library trustees accepted the gift on behalf of the library.

Dr. Wyman spoke as follows:

Gentlemen, Trustees of the Cambridge Public Library—In 1857, Friedrich Tiedemann, of Heidelberg sent to this country the catalogue of his library which he offered for sale. Professor Tiedemann was for fifty years the eminent anatomist and physiologist in the University of Heidelberg, the oldest in Germany. After ten *lustra* of service with distinguished success and the publication of many original researches in anatomy and physiology his *jubilum* was celebrated March 10, 1854, in Frankfort-on-the-Main, when a medal was struck (you have it in your cabinet) in his honor, bearing on the obverse the head of Tiedemann, and on the reverse for its central figure the starfish, in commemoration of his prize essay upon Echinoderma crowned by the Institute of France in 1812, with the legend, "*Viro de avgenda naturæ scientiæ per X lustra egregie merito to sodales* (Fancf. A. M. D. X. Mart., MDCCCLIV)."

He then resigned his professorship, and soon after lost his sight. His active work had come to an end, his library would no longer be to him what it had been, and it was offered for sale. A collection of works made by one so eminent in his department and the discriminative winnowing it must have undergone gives it a character seldom found in any library. In the short preface to the catalogue, he says: "This library was collected with much care and at great cost and used in my studies for nearly fifty years. It contains 4,690 volumes upon 2,867 different subjects besides 409 boxes in which there are more than 5,000 essays, dissertations and monographs and extracts or reports from journals." The value of these last may be inferred from the fact that many of the most important original researches are thus published and may never reach the text books.

An examination of the catalogue showed that the library was by no means limited to human anatomy, it contained very many works on comparative anatomy and physiology but also pathological anatomy, ethnology, natural history, and a large number of the most valuable of the older works and some of the more recent on diseases. It was obvious that it would be an aid to me in the department I professed to teach as Adjunct Hersey professor of theory and practice of physic in our University, and still further it would be of great value to the Hersey professor of anatomy, Professor Jeffries Wyman, containing as it does so large a number of original works on comparative anatomy and physiology not then to be found in the libraries of the University. With these views as to the value of the library, confirmed by the gentlemen then filling the chair of the departments interested, and feeling how grateful it would be to Professor Tiedemann in parting to know that his

literary family was not to be scattered and lost to sight, with more of sentiment perhaps than was prudent at the time, the whole library was acquired and brought to Cambridge.

It would be very difficult and unnecessary to give at this time a satisfactory analysis of the works now on these shelves, filling as they do 128 printed pages of the catalogue. I will mention a few of the older authors and their works.

Hippocrates, the "Father of Medicine." Littré edition is in nine volumes, the Greek text, with a French translation opposite; the best edition ever published, with copious notes and criticisms with an argument of each book. The English translation of the Sydenham society stands beside Littré's.

Eustachius, the anatomist who discovered the valve of the heart, whose name it bears.

Vesalius, 1555, the discoverer of a valve in the heart. The most accomplished anatomist of his time. A fine copy in folio with a life-like portrait in professional attitude, said to be, with the other illustrations, the work of Titian, but whether by him or not they are the work of a great artist, beautifully executed in wood.

Fabricius, who discovered the valves of the veins in the extremities.

Vidus Vidius, the vidian nerve and the vidian canal are his discoveries.

Ruysch, the inventor of anatomical injections, with many illustrations of his skill.

William Harvey, who, aided by the anatomical discoveries of Fabricius, Vesalius and some others, brought together the facts, "intended his mind upon them," until he came to the inevitable inference of the circulation of the blood and published it to the world the year the Pilgrims sailed for America.

Malpighi, who, with the use of lenses, demonstrated what Harvey had correctly inferred but never saw, the blood coursing through the vessels of the lungs and thus rendered possible a theory of respiration.

Morgagni, his great work *De sedibus et causis morborum per anatomen indagatis*. The Cruveilhier of his time.

Cruveilhier, nearer our own times; his great work in the two large folio volumes, *Anatomie pathologique du corps humain avec figures*, with its vivid description of cases and treatment and pathology, with carefully drawn and colored plates, a work possible only to one who has *himself* seen the beginning, the course and the end of the diseases he describes.

John Hunter, the first of English surgeons, his life and works.

Sir Astley Cooper's magnificent work on hernia.

Francis Glisson, [1593], his treatise on the anatomy of the liver, which anatomists now consult with admiration. He also wrote a work on "Irritation," of which Virchow in an oration lately delivered before the Royal society of London, says his own teachings in his Cellular Pathology on the same subject are but an elucidation.

I have thus glanced at a few of the works upon your shelves but they may give you some idea of the value which I think should be placed upon the collection.

If we wish for facts, and facts only, we may well consult the text books of which they are the record. But if we wish to know something of the wisdom of those who learned these facts, we must go to the authors themselves. It is only with them that we can learn their methods, their reasonings, their labor, their patience in discovering new truths, they are the prophets and teachers and we must learn at their feet.

It is to be hoped that what we now have here will be soon supplemented by publications containing the recent discoveries and the most valuable current medical literature. It is only in this way that we can keep fully up with the progress in medicine; so much of what is new comes now in our periodicals that these must not be wanting. I must say, however, I should be sorry that my medical adviser should treat me in accordance with articles in the last medical periodical. I should prefer that he would be a little slower and more confirmed as to facts for, as Dr. Holmes says, in his terse way, "the difference between green and seasoned knowledge is very great and such practitioners never hold long enough to any of their knowledge to have it get seasoned." I know of no better advice than that of Sir Benjamin Brodie. It would be well it were written in letters of gold in your reading room with *ne quid nimis* for a conclusion.

"Make yourselves masters of the old remedies. Learn how to handle them and what good they will do and, as a general rule, have recourse to them in the first instance. If the old remedies fail, and you are at a loss as to what you should do, then, and not till then, have recourse to the new ones. If you always begin with new remedies you throw away the valuable results, not only of your own experience, but the experience of those who have gone before you. You have to begin as it were, *de novo* and the first consequence of this will be that you will not cure your patients, and the second that you will have none to cure."

Gentlemen of the Board of Trustees—In placing this library under your care I can only say that it is my hope that it will be so administered as to promote the best interest of the medical profession and that its intercourse with the great minds here represented will inspire each member with a desire to devote himself to the work that shall best improve the health, relieve the diseases, and consequently increase the happiness of the community he is called to serve.

Allow me to congratulate the Trustees on the skill displayed by your indefatigable librarian, who by planning the arrangement of the library has made it so remarkably easy of consultation.

The following response to an invitation to Dr. Oliver Wendell Holmes to be present at the exercises was read :

BOSTON, June 9, 1893.

My Dear Mr. Higginson:—I should enjoy being present on the occasion to which you invite me if I were not a little tired just now, and not in condition to find myself at public meetings. I go to Beverly on Wednesday, and I shall be then trusting to get a little respite from my daily complications if possible.

It is a great thing to have such a library as that of Tiedemann as a nucleus for a scientific collection. His wide investigations during his life of eighty years, through many branches of anatomy and physiology must have caused him to bring together a great number of works of which it would be hard to find duplicates outside of the great European libraries. It adds largely to the value of the collection that it is to be always associated with the name of Wyman, borne by its donor, the wise and beloved physician, by the great Cambridge naturalist, his brother, and by their honored father whose memory is dear to our whole community.

Very truly yours,

O. W. HOLMES.

REPORT

OF THE

SUPERINTENDENT OF PUBLIC BUILDINGS.

OFFICE OF THE SUPERINTENDENT OF PUBLIC BUILDINGS,
CITY HALL, December 1, 1893.

To the Honorable, the City Council of the City of Cambridge:—

GENTLEMEN: — In compliance with Section 4, Chapter 13, of the City Ordinances, I have the honor to submit the eighth annual report of this department.

Attention is called, as in the report of last year, to the distinct advance the city has made in its public buildings, during the past few years. For its commodious City Hall and Public Library it is indebted to private munificence. It has built large and commodious structures for the Putnam, Peabody and Morse Grammar Schools, the Gannett Primary and the English High School. It has remodelled, enlarged and otherwise greatly improved the buildings of the Webster, Wellington and Latin Schools, and the new Bridge School house on Broadway, corner of Sixth street, has been completed.

These structures in their general plans, their heating and ventilation, and in their varied appointments, reflect the progress in such matters that characterize the times. It seems to be more fully recognized in these days that a community of the size, wealth and the consequence of Cambridge has no right to put up inferior buildings, to furnish the same with inferior equipment, or to keep them in inferior order. The prudent, prosperous and high-toned business corporation, as a matter of common business sagacity, aims to keep its establishment up to the highest mark of order and efficiency. A prosperous city is under equal obligations to do as much with its establishment, nay, it should set an example of clean,

efficient and substantial management that its citizens would do well to follow. The City Hall, with its conspicuous neatness and order within, and its finely kept lawns and flower beds without, is a permanent object lesson for all police stations, engine houses, and other city buildings of whatever kind and use, a lesson constantly suggesting itself to those who have the immediate care of these subordinate structures, that they should aim for something of the same order and presentability, and suggesting to the city as well its duty to coöperate heartily with every official in this line of work, order and good taste.

The following is a summary of the work done during the year: —

Wellington School House.

The extension and alteration of the Wellington School house located on Columbia street, corner of Lincoln street, Ward 2, which was being carried on under contract by Messrs. Briggs Bros., and according to plans and specifications prepared by C. H. McClare, architect, reached completion early in the year, and (after being furnished) occupied early in the spring. It is now one of our largest school structures, attractive and commodious, light, well ventilated and equipped in every way satisfactory. A description of the same was given in my report of last year.

The following is a statement of the appropriation, etc. :—

Amount appropriated	$11,950 00
Expended	11,947 25
Balance	$2 75

FURNITURE AND FURNISHINGS.

Appropriation	$2,000 00
Expended	2,000 00

Latin School House.

The changes which have been made in the old High School house building, on the corner of Broadway and Fayette streets for the use of the Latin School, have been such as to make the old structure (for school purposes) one of the best in the city

in every particular. The original appropriation was only sufficient to remodel the same, and the reslating of the roof was necessarily postponed until the present year, and an additional appropriation in the sum of $1,500.00 was granted to cover the same. The contract was awarded to John J. Blevins & Son (after advertising for proposals) for the sum of $1,285.00.

Appropriation	$1,500 00
Expended	1,500 00

Public Library Building.

The subject of enlarging the Public Library building had so far engaged the attention of the trustees regarding its necessities in the immediate future that measures were taken early during the year in relation thereto, and the matter was presented to the City Council for consideration and action, resulting in an appropriation to meet the expense. The architects, Messrs. Van Brunt & Howe, whose designs were adopted on its original construction, were again employed to further develop plans for the contemplated enlargement and additional improvements. After their plans had reached completion and had been accepted, an advertisement was inserted in the Cambridge *Press* on the 16th day of September, asking for proposals for the entire contract. There were four received and it was awarded to Marshall N. Stearns for the sum of $16,380.00 Attached to the advertisement was the following, showing the conditions under which said contract was awarded, viz.:—

"Parties bidding on the above-mentioned work are informed that the excavation and construction will not be commenced until suitable weather, early in the spring of 1894, but it is desired that everything should be in readiness so that no delays whatever may occur, and as soon as the weather opens, it may then at once be pushed to completion."

Appropriation		$20,000 00
Amount of contract	$16,380 00	
Architects' commission	573 30	
		16,953 30
Leaving for contingencies		$3,046 70

Bridge Primary School.

In the early spring, plans and specifications were prepared by C. Herbert McClare, architect, for a six-room school house, to be built on a lot of land on the corner of Broadway and Sixth streets. Estimates were received from several parties and the contract was awarded to Messrs. Briggs Bros. for the sum of $14,944.00. The building, which has just been completed, stands well back from the line of the sidewalk. Its walls are built of common red brick, buff stone trimmings, and two stories in height. It contains six large and convenient school rooms (two of which are unfinished), three on each floor, with light and roomy corridors, halls and stairways. It is finished in the best manner with cypress stock and rift grain hard pine floors, stairs, etc., well warmed and ventilated by two warm air furnaces and a large brick vent shaft. This building is the most recent of the school houses erected by the city, and one of the best, containing some new features not found in other schools.

Appropriation	$16,800 00
Expended	12,967 35
To be re-appropriated	$3,832 65
Appropriated for furniture	$800 00
Expended	797 22
Balance	$2 78

Manual Training School.

It should be gratefully remembered, that a number of rooms in this building are occupied by the English High School boys, at no expense to the city. Mr. Frederick H. Rindge has furnished during the past year an annex for the better accommodations of the pupils of the Training School, and in the same building rooms were placed at the disposal of the School Board for school purposes, as in the first-named building. Upon the acceptance of the gratuitous offer of Mr. Rindge, the rooms were furnished, and for the past three months they have been occupied.

Appropriation for furniture, etc.	$1,500 00
Expended	1,495 45
Balance	$4 55

Care of City Grounds.

The care of grounds around city buildings and school houses, was placed during the year, in charge of the Street Department, and they have received the attention their merits deserve. Those around the City Hall building, the Public Library and the English High School, have been adorned by added shrubbery and flowers, and their lawns have been well kept. Grading and varied care has been done on sundry other plots connected with school houses, tending to beautify and adorn, and reflecting much credit on the department under whose care they have flourished.

New English High School.

The lot of land in the rear of the English High School building has been used for the past two or three years as a play-ground by the boys of that school and the Manual Training School. The lot was raised to grade several feet by Mr. Rindge for this purpose and is kept in good condition by him at considerable expense for public uses, he at the same time paying taxes on the land. There is a strong probability that this play-ground may be cut up into house lots and sold, and it is strongly urged that the city consider the wisdom of buying it for its own uses. Certainly when the wings of the English High School are extended to the rear line of the city land (as they will have to be in the not far distant future), a portion of the play-ground, say a strip of forty feet or more in width, will be needed for a rear passage-way to the court. The lot in time may be needed for a building for the Latin School, or for other school purposes, but meanwhile it could be used as a playground, or as an extension of the little park, of which the Public Library is the central feature. Whatever opinions may be held about the ultimate disposition of the entire lot, a strip of it for the future growth of the English High School is imperatively needed. I respectfully suggest that the matter of obtaining a part or the whole of this land receive your early consideration.

Appropriation for furniture and furnishings	$500 00
Expended	496 50
Balance	$3 50

Sanitary Conditions of School Houses.

The complaints which have frequently reached this office from sundry parties owning property adjoining school houses, relative to foul and offensive conditions of vaults in out-buildings in different sections of the city have been regarded during the year and remedied so far as the appropriation made for the purpose would allow. In addition to the number of changes made during the previous year, the following have been given relief during the past year, viz.: — Dana, Dunster, Holmes, Riverside, Wyman, Reed and Tarbell. In each instance an approved arrangement of water-closets have been installed in their basements, well-lighted and ventilated in each, and the results attained by all these changes have been highly satisfactory.

The appropriation made for the purpose was	$3,550 00
Expended	3,549 14
Balance	86

There still remains a pressing necessity, which is becoming more severe, calling for the removal of those remaining, which are connected with the following school houses, viz.:—Corlett, Cushing, Old Gannett, Lowell, Lassell, Washington and Willard. They are all severely complained of as being offensive and far behind the requirements of the times. To place water closets in the basements of each will cost at least $7,000.00. On account of the necessity, the importance and obligation resting on the city, I respectfully recommend that the appropriation be made.

Agassiz School House Sanitary.

By order of the School Board, the Agassiz School was closed on Monday, November 19, on account of complaints relating to its sanitary condition. Immediate measures were taken to reach correct conclusions regarding the cause, and to apply a proper remedy. After due inspection, plans were prepared by

the City Engineer, an appropriation was made, bids obtained contract awarded and work commenced in one week after the school was closed, with an agreement that the whole be completed in four weeks from that date. The contract for the plumbing, carpentry, mason work and painting was awarded to

Herbert L. Rose for the sum of	$1,745 00
For Ventilation to S. C. Higgins for	200 00
Total	$1,945 00

It was ordered by the City Council, at nearly the last day of the financial year, and that the expense be met from the appropriation for School Houses: Care and Repair. That appropriation however had nearly all been disposed of at the date mentioned, so that no aid could be rendered for the purpose from that source. I am therefore compelled to ask that a special appropriation be made to meet the expense, in the sum of $2,000.00.

Harvard Grammar School Sanitary.

In connection with the complaint made relating to the sanitary condition of the Agassiz School, it appears pertinent to state that the condition of the Harvard School sanitaries are equally as offensive as in the former and should receive correction besides those previously mentioned, at a date not far in the future.

The New Plumbing Ordinance and Inspector of Plumbing.

The new ordinance in relation to plumbing was passed by the City Council, November 20, which placed the duty of applying and enforcing the same in the office of the Inspector of Buildings. One of the first duties under the ordinance was the appointment of an Inspector of Plumbing. An application was made to the Board of Health, asking permission to transfer Mr. William A. Ford from that department to that of Inspector of Buildings to be employed in the capacity named, consent to the same having been obtained, also that of the Civil Service Commission to whom application had been made, and he was immediately appointed Inspector of Plumbing, at a salary of $1,000.00

per annum. An appropriation to sustain the expense of this additional service will be as follows, viz. :—

Salary of the Inspector	$1,000 00
Office supplies and furniture	100 00
Total	$1,100 00

Military Department.

Repairs on the Shooting Station, Rifle Pits and Targets, including $60.00 for rent of land for same, has cost $100.00. The site for the pits and targets was leased for a period of five years, at a yearly rental of $60.00. Said lease expired November 1st, and it is now occupied at the option of its owner. It has been strongly urged that the present site be abandoned and another selected of a longer range and in a locality where the opportunities for danger by shooting will be less frequent. As it is important that the question be met and a permanent site decided upon, the matter is brought to your notice for consideration and action.

New Engine House, Ward 3.

The engine house erected on the corner of Otis and Third streets, and nearly finished at the date of my last report, of which a description was then given, has been entirely completed and occupied by the Fire Department. A report of its cost is as follows : —

Appropriation in 1891	$23,615 00
Expended in 1892	13,366 44
	$10,248 56
Which amount with the addition of $200.00 was reappropriated in 1893 making a total of	10,448 56
Expended in 1893	10,447 55
Leaving a balance of	$1 01

Fire Department.

New Engine House No. 2, and Truck House No. 3.

Early in the month of April an advertisement was inserted by this department in the Cambridge *Press*, inviting parties to offer plans for a new Engine and Truck House, since erected, on

the late site of the old Mason school house, Lafayette Square. Six plans were submitted, not only by architects of this city but also of Boston, and, after a thorough examination, those of Messrs. Condon & Greco of this city were accepted.

Another advertisement was inserted in the Cambridge *Press* on May 20, asking for proposals for building a brick engine house according to the plans adopted, to be received at this office until June 5th, at 10 o'clock, A. M. At the time stated the bids were opened by authority of the Mayor and forwarded to him resulting finally in the award of the contract to Messrs. John McDonald & Son, for the sum of $25,473.00

The wisdom in the selection of plans is readily seen in the structure, showing features of artistic beauty and modesty, stability, convenience and character, and receiving expressions of general commendation. Being of colonial style, it is worthy of the permanent site upon which it is built. The easterly side of the building is to be occupied by Engine Company No. 2, and the westerly side by Ladder Company No. 3, each section having a lounging room and the necessary stables, harness and dry room. On the second floor each company has a meeting room, four bed-rooms with portable wardrobes, linen closets, bath-rooms and water-closets. The finish is all of hard wood, polished in its natural state. The building is piped for gas and wired for incandescent lamps, it is well ventilated and heated throughout by steam and the plumbing is of the first order respecting work, material and system.

Appropriation	$27,500 00
Expended	15,863 31
Balance to be reappropriated	$11,636 69

Chemical Engine House, Ward One.

Mr. Wilfred A. Norris, architect, having been engaged to prepare plans for a Chemical Engine House, on Lexington Avenue, and having completed the same to acceptance, an advertisement was duly inserted in the Cambridge *Press*, inviting proposals for building the same, resulting in its award to John McDonald & Son, for the sum of $10,940.00. The building is two stories in height, and is built of common red

water struck brick, laid in flemished bond, with dark bench brick, laid in pattern. The trimmings are of Amherst stone, with base course of granite. The ground floor contains an apparatus room with stable accommodations in the rear for four horses, and ample drying, harness and toilet rooms. Opening from the apparatus room in front is a lounging room with an open fire place in the angle. The second story is arranged for four sleeping rooms with ample closets, and a large reception room, all opening into a broad corridor. Over the stable is placed the bath-room, store-room and hay-loft, all well lighted and furnished with every convenience. The building is well ventilated and piped for gas and electric lighting and will be heated by steam.

Appropriation	$12,000 00
Expended	5,641 42
Balance to be reappropriated	$6,358 58

It will be necessary to grade the entire lot on the opening of the spring and to pave the front approaches to the building; and as $600.00 will be required for said purpose, I respectfully request that this amount be appropriated.

Police Station, Ward 3.

The police station located on Fourth street, Ward 3, recently completed from plans by C. H. McClare, architect, is the best arranged for the purpose in the city. The old building (now remodelled) was used for an engine house, police station and Ward room. The walls were thin, the arrangements poor, and the problem in alterations was not an easy one to solve, and yet the difficulties met and overcome, have resulted in giving the highest satisfaction, surely to those immediately interested in the Police Department. The plans as carried out provided a large patrol wagon house, van room, stable, etc., with an entrance on Gore street. The stable has stalls for three horses and a box stall, feed and water troughs and all other modern stable fittings. The front of the patrol house is of red pressed brick with neat moulded brick arched entrance and windows. Above the wagon room is a sleeping room for the driver, connected with the room below by a sliding pole and stairs.

Adjoining the wagon room and connected by a door, through which the arrests are taken, is the cell room. This is a large airy room with windows on three sides and the twelve cells placed in the centre, facing each way, with corridors all around. The cells are of steel bars, and doors with Yale locks, making all secure and convenient for care. In each is a twenty inch bunk and water closet hopper which is flushed by iron pipes from tanks. The Fourth street front has been made over as high as the sills of the second story windows to suit the new requirements, with neat arched entrance, large plate glass windows on either side and door to the Ward room. The office which is entered from the vestibule on Fourth street, is light, roomy and pleasantly situated, with doors leading to the signal room, private office and guard room. The guard room is connected with the cell room and contains lockers for the use of the patrolmen. The old cells in the basement have been repaired and put in condition for use, and all are properly ventilated into the old hose tower. The whole is heated by steam, lighted by gas and electricity and kept in good order by a janitor.

Appropriation	$11,075 00
Expended	11,070 00

Almshouse Alterations.

Extensive alterations and improvements have been made on the interior of the Almshouse, and the part of the building forming the octagon has been changed throughout. Double sections of sleeping rooms have been constructed on the first and second floors, eight in each section, or thirty-two in number, all opening into large, well lighted corridors on the several sides. The attic story has also been partitioned off in two sections for sleeping purposes. A well located assembly room has been fitted up in the south wing on the second floor, the Hospital has been enlarged, and much improved, contributing largely to the comfort of the inmates. The changes made have been largely those suggested by the Superintendent and Matron of the institution and meet with their entire satisfaction and approval — they afford a better disposition of light, a greatly improved circulation of fresh air and give an aspect of cheer and

increased comfort. Early in the year an appropriation of $2,500.00 was made to enable the Overseers of the Poor, to not only make the changes mentioned, but also to cause the building to be made safe from the danger of fire. Perhaps the most important expenditure out of the amount appropriated, has been for work done by the Water Department. A six-inch water main has been conducted into the Almshouse and two four-inch stand pipes have been erected, affording water for sixteen lengths of hose. The supply of water has been increased by laying a ten-inch main in North Avenue and connecting with the Almshouse water pipes at the foot of Tannery street, so that the expenditure named gives the assurance of increased safety and protection in case of fire. The expenditures have been the full amount of the appropriation of $2,500.00, and were met in settlement by the Department of the Overseers of the Poor.

Water Department.

Mr. George Fogerty, architect, was engaged by the Water Board, early in the spring season, to prepare plans for a house and stable to be located near the Pumping Station on Worthington street, for the occupation of the engineer employed at that station. After an advertisement inserted in the Cambridge *Press*, the contract was awarded to James Keenan for the sum $7,350.00, which amount was met by the Water Department, to be paid from an appropriation made for that purpose.

Bath House.

The expense on the bath house during the year has been very light; it will be necessary before its use another year to paint its exterior and interior, regulate its ballast and make numerous repairs, the same becoming necessary by its constant exposure to rough weather and its action upon it. To meet said expense I would recommend that $300.00 be appropriated for the purpose and for the salary of the janitor, $325.00.

Amount expended for repairs $387 50

Brick Vault, Central Sq. Building.

A brick safety vault has been constructed in the second floor of the City Building, in Central Square, in the space adjoining the rooms occupied by the Overseers of the Poor for the use of that department, the same supplying a much-needed convenience and a real necessity. Early in the year its construction was authorized by the City Council, the cost not to exceed $800.00. The contract was awarded to Mr. Marshall N. Stearns for the sum of $798.00, the expense to be met from the appropriation for the care and repair of City Buildings.

Buildings belonging to the City, not permanently occupied.

The old City Hall building has been put to a variety of uses during the year. The First National Bank occupied rooms in the same for two months, a small industry four months, and at present a few rooms are in use as a Women's Gymnasium. It has also been used for voting purposes. The matter of its disposal has been referred to the next City Council.

The building on Lee street, formerly the home of the Latin School, has been closed nearly the entire year. During the month of November it was again re-opened for school purposes, to answer only a temporary convenience.

The small one-story wooden school house on Pioneer street has been closed for school purposes since the complètion of the new Bridge School house. The former is a poor, worn-out structure, and its future disposition will soon be a matter for consideration by the City Council.

Additional Rooms for School Accommodation.

During the year it has been necessary, in addition to opening the Latin School, to also procure school accommodations in a building next to the Dunster school house, Concord avenue, belonging to Mr. John F. O'Brien, at a rental of $200.00 per year. Another on Walden street, owned by Messrs. Bancroft and Griffin, at a rental of $250.00 per year. The Ward rooms in Wards Three and Five have also been put in use for the same purpose.

In order to provide adequate school accommodations for the present overflow of pupils connected with the Shephard School and for a continued increase which another year will show, it has been suggested that a new site be purchased, near the present location for the erection of an additional school house for the purpose of relief. Another plan suggested, and perhaps the most feasible, is to enlarge the present building, making the whole a roomy, convenient, remodelled structure, suited to present and future necessities. There is a lot of land at the rear of the school house belonging to the city which could be utilized for the enlargement, and if more should be necessary it is understood that a part of the ajoining land in the rear could be purchased at a reasonable cost.

Site for a New School House in Ward Three.

The sum of $5,000.00 was appropriated at the beginning of the year for the purchase of a lot of land in Ward 3, for a school house to be built another year. After diligent search and inquiry in the vicinity where it was desirable to locate, a lot of land on Charles street appeared to answer the purpose far better than any other lot previously inspected. It was unobstructed by house property, and contained the amount of land desired; surrounded on three sides by streets, and on the fourth by a passage way, and the price was placed at .35 per foot. It had the approval of the Chairman of the Committee on Schools of the School Board, the member of that committee from Ward 3, and of the Superintendent of Schools. There was, however, some dissatisfaction manifested by other parties interested, and it was deemed best to have the whole matter go over to the present year, when it will be necessary to have the same, if not a larger amount, appropriated for the purpose.

Real Estate Belonging to the City.

SCHOOLS.

Buildings.	Location.	Feet of Land.	Valuation.
Washington	Brattle street	14,951	$32,000 00
English High	Broadway	74,366	238,000 00
Corlett	Holworthy street	10,000	4,000 00
Agassiz	Sacramento street	19,689	24,000 00
Cushing	Cushing street	14,787	4,000 00
Dunster	Concord avenue	10,000	6,000 00
Holmes	Hilliard street	11,182	10,500 00
Lowell	Lowell street	12,033	9,500 00
Quincy	Mason street	8,469	15,000 00
Riverside	Putnam avenue	11,192	8,000 00
Old High	Fayette street	37,828	55,900 00
Latin	Lee street	10,100	15,000 00
Wellington / Gannett	Columbia street	27,673	50,300 00
Allston	Boardman street	15,193	34,600 00
Harvard	Inman street	20,494	57,000 00
Bridge	Pioneer street	4,646	1,900 00
Bridge	Broadway	.....	22,000 60
Dana	Centre street	14,317	6,300 00
Felton	Amory street	15,090	10,500 00
Gannett, new	Jefferson street	15,434	15,000 00
Sargent	Broadway	9,995	7,000 00
Stearns	Harvard street	10,050	8,000 00
Putnam	Fourth street	11,900	68,300 00
Thorndike	Thorndike street	10,027	34,000 00
Gore	Gore street	9,900	29,600 00
Lassell	Charles street	10,000	10,500 00
Otis	Otis street	8,270	16,000 00
Webster	Upton street	25,839	59,000 00
Boardman	Windsor street	10,018	16,000 00
Tarbell	Griggs street	19,500	12,000 00
Willard	Lake street	20,079	30,000 00
Morse	Brookline street	25,650	80,000 00
Peabody	Linnæan street	21,813	34,000 00
Shepard	North avenue	14,755	37,000 00
Reed	Reed street	12,000	5,200 00
Wyman	Spruce street	14,347	9,000 00

CITY BUILDINGS.

Ward One	Brattle square	16,153	$69,700 00
Ward Four	Central square	13,028	60,500 00
Old City Hall	Main street	12,881	29,300 00
New City Hall	Main street	48,474	248,500 00
Hook and Ladder House.	Portland street	11,931	15,000 00
Engine House No. 2	Main street	3,150	8,000 00
Engine House No. 4	North avenue	6,516	10,000 00
Engine House No. 5	Inman square	6,000	13,000 00
Engine House No. 6	River street	4,924	14,500 00
New Engine House	Front street	10,000	37,000 00
New Engine House	Lexington avenue	15,262	16,000 00
New Engine House	Third street	5,250	24,000 00
Police Station	Fourth street	4,220	22,100 00

Maintenance of School Houses.

Schools.	Fuel.	Repairs.	Supplies.	Ex. Labor.	Janitors.	Totals.
Allston	$432 00	$105 23	$381 58	$ 48	$367 33	$1,286 62
Agassiz	311 00	585 01	23 53		487 50	1,407 04
Boardman	269 00	102 61	5 16		521 65	898 42
Bridge	26 14	46 04	1 00		156 50	196 47
Corlett	97 25	46 04	12		234 75	378 16
Cushing	125 75	242 73	12	11 80	234 75	615 15
Dana	101 87	169 55	2 68	8 85	247 72	530 67
Dunster	134 50	90 99	8 30	2 95	392 57	629 31
Felton	161 40	122 82	20 77		247 72	552 71
Gannett, new	274 38	71 99	103 15	11 80	418 00	879 32
Gannett, old		1 00	13 96		464 58	479 54
Gore	458 30	286 16	4 81		643 33	1,392 60
Harvard	582 54	304 98	64 03	25 69	827 22	1,804 46
High	1,845 85	31 25	202 23	942 03	1,806 01	4,827 37
Holmes	134 90	60 78	29		352 12	548 09
Lassell	108 40	282 21			365 16	755 77
Latin	954 64	119 62	37 23	18 90	852 93	1,983 32
Lee Street	7 00	14 00	1 20			22 20
Lowell	161 74	54 95	9 85		313 00	539 54
Morse	1,323 42	138 19	12 89		1,034 33	2,508 83
Otis	166 78	233 44	16 35		495 50	912 07
Peabody	542 95	105 63	62 80		512 83	1,224 21
Putnam	1,124 15	107 40	407 50	5 85	695 33	2,340 23
Quincy	157 48	70 12	3 79	2 00	313 00	546 39
Reed	134 50	3 38	3 90		365 16	506 94
Riverside	203 40	247 15		8 01	307 32	775 88
Sargent	163 00	34 26	2 79		467 33	567 38
Shepard	383 60	18 60	11 72		626 00	1,039 92
Stearns	161 40	74 52	16 47		247 89	500 28
Tarbell	231 12	107 45	27 61		317 33	683 51
Thorndike	412 37	185 38	80 01	24 47	730 33	1,432 56
Washington	407 80	426 22	151 45	2 00	586 88	1,574 35
Webster	753 20	331 75	531 07		939 00	2,555 02
Wellington	1,500 76	208 35	73 75	75 85	464 58	2,323 29
Willard	416 35	112 25	17 56		730 33	1,276 49
Wyman	291 85	2 35	2 50		417 33	714 03
Walden St.	64 37	57 10	9 60	10 00		141 07
All Schools	278 85	143 78	1,033 87	448 41		1,904 90
Totals	$14,904 01	$5,312 07	$3,345 63	$1,599 09	$18,093 31	$43,254 11

Care and Repair of City Buildings.

CITY HALL.

For Fuel	$1,664 95
Gas and Electric Lighting	936 57
Furnishing and Supplies	1,036 82
General Repairs	702 11
Janitor	1,202 44
Engineer	624 00
Fireman	624 00
Watchman	728 00
Extra labor, etc.	2,142 17
Total	$10,077 06

WARD ONE, BRATTLE SQUARE.

For Fuel	$1,030 50
Gas	574 47
Janitor	1,399 93
General Repairs	978 66
Miscellaneous furnishings	102 84
Lighting Tower Clock	120 00
Total	$4,206 49

WARD FOUR BUILDING, CENTRAL SQUARE.

For fuel	$491 22
Gas	298 99
Janitor	1,399 93
General Repairs	345 52
Miscellaneous furnishings	127 48
Total	$2,663 14

POLICE DEPARTMENT.

Police Station 1, Brattle Square	$30 77
Police Station 2, Central Square	88 70
Police Station 3, Fourth Street	680 69
Police Station 5, North Avenue	28 00
Total	$1,098 16

FIRE DEPARTMENT.

Engine House No. 1, Brattle Square	$39 80
Engine House No. 2, Main Street	104 62
Engine House No. 3, cor. Otis and Third Streets	358 30
Engine House No. 4, North Avenue	333 63
Engine House No. 5, Inman Square	66 05
Engine House No. 6, River Street	92 49
Chemical House No. 1, Central Square	18 99
Hook & Ladder No. 2, Brattle Square	18 25
Hook & Ladder No. 2, Portland Street	13 36
Total	$1,045 49

ELECTION EXPENSES.

Appropriation	$1,200 00
Additional	400 00
	$1,600 00
Expended	1,599 74

So far as is apparent now there will be required for ordinary repairs on school houses, as follows: —

Allston	$382 00	*Amount brought up*	$2,781 00
Agassiz	75 00	Putnam	482 00
Boardman	300 00	Peabody	190 00
Bridge	75 00	Quincy	415 00
Cushing	45 00	Reed	100 00
Corlett	160 00	Riverside	450 00
Dana	200 00	Shepard	115 00
Dunster	238 00	Sargent	117 00
Felton	120 00	Stearns	211 00
Gannett	100 00	Thorndike	170 00
Gore	100 00	Tarbell	75 00
Harvard	155 00	Wellington Grammar	254 00
Holmes	77 00	Wellington Primary	76 00
Latin	215 00	Webster	650 00
Lassell	62 00	Washington	147 00
Lowell	65 00	Willard	190 00
Morse	322 00	Wyman	211 00
Otis	90 00	English High	600 00
Amount carried up	$2,781 00	Total	$7,234 00

On city buildings there will be required as follows: —

City Hall	$1,235 00
Central square building	810 00
Brattle square building	455 00
Ward rooms	50 00
Total	$2,550 00

Fire Department.

The estimated appropriation to meet the necessary repairs and improvements in this department for the ensuing year is as follows: —

Engine House No. 3, corner Otis and Third streets	$100 00
Engine House No. 4, North avenue	40 00
Engine House No. 5, Inman square	72 00
Engine House No. 6, River street	81 00
Chemical House No. 1, Central square	50 00
Hook and Ladder Co. No. 1, Brattle square	59 00
Hook and Ladder Co. No. 2, Portland street	57 00
Engine House, Front street	225 00
Engine House, Lexington avenue	150 00
Total	$834 00

Police Department.

Station One, Brattle square	$110 00
Station Two, Central square	100 00
Station Three, Fourth street	129 00
Station Five, North avenue	50 00
Total	$389 00

Election Expenses.

An estimate is here given of election expenses for the year ending November 30, 1894, as follows: —

Bills not paid due on last state election	$163 00
Pay of janitors, two elections	336 00
Hall rent for caucuses	200 00
Rent of four precincts	140 00
Sawdust	10 00
Lamps and oil	20 00
Coal	7 00
Expressing, etc.	20 00
Total	$896 00

Estimate of Appropriations required for this Department.

SCHOOL HOUSES, CARE AND REPAIR.

Repairs	$7,234 00	
Janitors	21,600 00	
Fuel	16,000 00	
Supplies	4,500 00	
Janitors, Evening Schools	600 00	
Engineer, Evening High School	325 00	
Electric: Evening Schools	1,300 00	
Gas	1,000 00	
		$52,559 00
Rent of Rooms (extra)		450 00

AMOUNTS TO BE RE-APPROPRIATED.

New Engine House, Ward One	$6,358 58	
New Engine House, Ward Four	11,636 69	
New School House, Ward Two	3,832 65	
Land for School House, Ward Three	5,000 00	
		$26,827 92

SPECIAL APPROPRIATIONS.

Sanitary Arrangements, Agassiz School	$2,000 00	
Sanitary Arrangements, Schools	7,000 00	
Paving and grading around Chemical Engine House, Ward One	600 00	
Flags	100 00	
		$9,700 00

CITY BUILDINGS, CARE AND REPAIRS.

For Repairs	$2,550 00	
Janitors, Engineer and extra help	10,150 00	
Fuel	3,700 00	
Gas and Electric	2,100 00	
Supplies	2,500 00	
Lighting Tower Clock	120 00	
Janitors for Ward Rooms	50 00	
		$21,170 00

MISCELLANEOUS.

For Election Expenses	$896 00	
Shooting Station	100 00	
Fire Department	834 00	
Police Department	389 00	
		$2,219 00

BATH HOUSE.

For Repairs	$350 00	
Janitor	325 00	
		$675 00

INCIDENTALS.

For Superintendent's Salary	$1,750 00	
Assistant's Salary	1,000 00	
Inspector of Plumbing	1,000 00	
Clerk Hire, Care of Horse, etc.	1,200 00	
		$4,950 00
Total Appropriations asked for		$118,550 92

RECAPITULATION.

For School house care and repair	$53,009 00	
New School House, Ward 2	3,832 65	
Land for school house, Ward 3	5,000 00	
Sanitary arrangement for Agassiz School	2,000 00	
Sanitaries, sundry schools	7,000 00	
Flags	100 00	
Total for school houses		$70,941 65
For City Buildings, care and repair	$21,170 00	
Fire Department	834 00	
Police Department	389 00	
Bath house	675 00	
Shooting Station	100 00	
Paving and grading around Chemical Engine House, Ward 1.	600 00	
New engine house (reappropriation) Ward One	6,358 58	
New engine house (reappropriation) Ward Four	11,636 69	
Totals for City Buildings		$41,763 27
For incidental expenses		4,950 00
Election expenses		896 00
Total appropriation asked for		$118,550 92

Remarks.

On an inspection of the estimates rendered for the ensuing year it will readily be observed that nearly all of the items of expense are established, consequently the amount cannot be diminished. The balance of contracts will have to be met, the janitors must receive their salary, the cost of fuel, electric lights and gas are easily estimated, and the expense for care and repair has been carefully considered. I therefore urge that the amount asked for in the recapitulation be fully granted. The neglect of last year, will call for execution during the present year, beside many urgent and important matters in the line of work will have to be met, and our interest and pride all point to a proper preservation of the city property in her public buildings.

The English High School building shows what may be possible of realization in time, with many if not most of the school buildings of the city. There appears no difficulty in preserving its lawns, the flowers have bloomed there all summer and into the fall, with scarcely a trace of molestation, although exposed during the vacation season to thousands of young people every day. Lawns and flower beds, if not permitted to run to decay, if faithfully cared for, as the City Forester cares for them, are preserved with greater case than is commonly supposed. It must not be forgotten that this ease of care holds a very exact relation to the pains taken to have something worthy of respectful treatment, nor is it necessary to abolish play grounds in order to have some show of natural beauty about the school house. The large lots yield room for play and gardening both, while the lot too small for a play ground needs all the more to be made attractive to the eye as the conditions of sunlight and use permit. The English High School building, has thus far been one of the best kept of the school buildings, the governing principle is, not to have dirt or rubbish accumulate under any circumstances, to fight its beginnings, rather than postpone the conflict, until it has the mastery.

The janitors of the city, and all who have the immediate care of public buildings, would inspire the city with a stronger spirit to coöperate with them, if they were constantly seen to have strict notions of cleanliness and order, and were continually

struggling to carry them out. An appeal for additional aid when it comes from one who does not seem to mind the disorder all about him, has far less weight than that from one who endeavors to make a good showing with such facilities as he has. In the former case the chief question that is likely to be raised, is the fitness of the janitor, while in the latter, his fitness is obvious, and his request for more earnest coöperation is in better shape to command attention; and here comes the important principle in the care of buildings. It is generally agreed that when a building is well-constructed, well-equipped and well cared for, it invites considerate treatment. The public does not expect of janitors or those having care of city buildings unreasonable service, but it does require that they be painstaking and careful, that they be faithful and render efficient service; and that they at all times exhibit a commendable interest and pride in general appearances and in the question of cleanliness and responsibility.

The days of the old school house, with its shamefully scribbled walls and defaced desks, are gone by. The poorly equipped engine houses and police stations will soon be among those of the past; cramped and inconvenient offices for the transaction of public business are now little known. We are on the advance. "'Tis well to discern the pathway, progress along which is likely to lead to better things."

In conclusion, I desire to say that it is with feelings of great pleasure, that, in parting with the closing year, I can recall the cordial and helpful relations which have existed between the Committee on Public Property and this department. For the patient consideration on matters of public interest, and for their ever-ready advice, guidance and support, I wish hereby to tender my heartfelt and sincere thanks, and trust that the city will always have rendered to her the same faithful service, of which she can ever be truly grateful.

Respectfully submitted,

BENJAMIN H. STEELE,

Superintendent of Public Buildings.

REPORT

OF THE

INSPECTOR OF BUILDINGS.

OFFICE OF THE INSPECTOR OF BUILDINGS,
CITY HALL, CAMBRIDGE, Dec. 1, 1893.

To the Honorable, the City Council of Cambridge:—

I HAVE the honor to submit my eighth annual report relating to the business of this department for the year ending November 30, 1893.

By reference to the annexed tables it will be seen that 527 permits have been issued during the year for building alterations, etc., and that 263 examinations have been made in cases of dangerous conditions, violations of the building ordinances, etc.

Builders have promptly applied and secured permits and a general compliance has been accorded to the requirements of the building ordinances of the city.

Following is a table showing the number and character of alterations ordered where the services of the Inspector of Buildings have been required in the interest of public safety:—

Buildings in dangerous condition	58
Dangerous flues	21
Wood too near flues	30
Weak foundations	36
Fire checks ordered	42
Violation of the building ordinances	31
Notices to State Inspector	6
Inspection of buildings to move	32
Funnel outside of house	7
Total	263

The following table shows the number of permits granted in each ward for buildings, etc., and the use for which they were intended: —

BUILDINGS.	WARDS. 1	2	3	4	5
Dwelling houses in blocks	5	10	2	13	6
Simple dwelling houses	49	51	4	15	65
Addition to houses	17	25	9	27	15
Cellar walls	19	8	3	7	1
Factories		7	5	5	1
Carriage houses	1			1	
Offices		4	1	1	
School houses	1	3			
Churches	1				
Shops	5	2	4	4	4
Bakeries			1		
Club houses	2			1	
Green houses	2			1	5
Engine houses	1	1		1	
Steam boilers	3	2	3		
Tank houses					1
Dormitories	8				
Grand stands	2				
Chimneys	1			1	1
Stores	2	5		2	
Storage	8	6	6	9	8
Stables	15	10	9	7	12
	132	134	47	95	119
Total					527

Of the foregoing permits 457 were issued for wooden buildings, 34 for brick and stone buildings and 36 for sundry purposes. Making a total of 527.

Those of brick or stone are as follows:—

Dwellings	14
Boiler houses	5
Dormitories	3
School houses	2
Engine houses	2
Factories	2
Offices.	2
Church	1
Club house	1
Police station	1
Storage	0
Total	34

Number of permits granted for each month during the years 1892, 1893:—

	1892	1893
December	27	38
January	23	13
February	24	14
March	55	38
April	72	71
May	72	58
June	90	73
July	59	48
August	56	35
September	43	35
October	39	56
November	32	48
Totals	592	527

The services rendered by Mr. James Richardson, Assistant in this department, are to be commended. Always ready and faithful in the performance of his duties, I feel that no mistake was made in his appointment.

Respectfully submitted,

BENJAMIN H. STEELE,
Inspector of Buildings.

REPORT

OF THE

COMMITTEE ON SOLDIERS' AID.

THE Committee on Soldiers' Aid submits to the City Council its report for the year ending Nov. 30, 1893.

The amount paid as regular State aid was	$13,513 00
The amount paid to indigent soldiers and sailors was	2,557 00
The amount paid as soldiers' relief was	6,102 00
The amount paid for the burial of deceased indigent or friendless soldiers or sailors was	525 00
The amount paid to the clerk and agent employed in the examination of settlements, etc., was	900 00
Carriage hire	5 00
Printing and stationery	71 58
Aid by cities and towns	118 45
Board and care of sundry persons	1,596 17
Car tickets	15 00
Directory	3 00
Fuel	35 60
Sundry supplies	28 00
Total	$25,469 80
The amount received from the Commonwealth was	15,135 94
The amount received from other towns and cities was	24 80
For sundry authorized payments which were not paid	134 00
	$15,294 74

There are now upon the State aid list 277 persons, and upon the list of indigent soldiers and sailors, 20. The number of persons upon the soldiers' relief act list is 78.

All of which is respectfully submitted,

R. B. BANCROFT,
WELLINGTON FILLMORE,
E. B. JAMES,
H. P. BLACKMAN,
JOHN H. PONCE,

Committee on Soldiers' Aid.

REPORT

OF THE

BOARD OF CEMETERY COMMISSIONERS.

IN BOARD OF CEMETERY COMMISSIONERS,
CAMBRIDGE, December 26th, 1893.

To the Honorable, the City Council of the City of Cambridge:—

THE Board of Commissioners of the Cambridge Cemetery respectfully submits its fortieth annual report, the same being for the year ending November 30, 1893:—

The amount appropriated at the beginning of the year was as follows:—

Current expenses	$17,000 00
New gateway	2,500 00
Total	$19,500 00

The total amount of expenditures was as follows:—

Current expenses	$16,749 77
New gateway	2,712 82
Total	$19,462 59

On request of this Board, by an order of the City Council, approved October 11th, 1893, the sum of $212.82 was transferred from the appropriation for "Current Expenses" to that for "New Gateway," to allow the completion of certain work on the Gateway, which was not contemplated in the original plan.

From this statement, it will be seen that the ordinary current expenses of Cambridge Cemetery equalled the sum of $16,749.77, being $250.23 under the estimated amount.

For a detailed account of expenses reference is made to the Auditor's report.

The receipts of the year have been as follows : —

Burial and tomb fees	$5,272 25
Care of lots,	3,615 05
Sale of lots and graves	7,915 23
Foundations, brick graves, etc.	1,635 16
Interest on cemetery fund	1,056 55
Sundries (including rent)	808 22
Total,	$20,302 46

The estimated revenue was	$19,000 00
The actual revenue was	20,302 46
Excess of revenue over estimate	1,302 46

At the beginning of the year, this Board was of the opinion that the receipts for the year would be about $17,000.00. As the season of 1892 showed a large excess of receipts over any previous year, it was felt that this estimate would be a conservative one and entirely in accordance with the experience of other years. The result for the past year, however, shows an unexpected excess of receipts over 1892, and the Board is pleased to report an excess, as indicated in the foregoing table, of $1,302.46.

The expenses of the Cemetery have been kept well within the appropriation for the purpose, having required the sum of $16,749.77, so that the Cemetery Department has been enabled to conduct its ordinary affairs, to build a new gateway, (at an expense of $2,712.82,) and place to its credit in the City Treasury, the balance above noted, without drawing from the tax levy, — a showing which is felt to be creditable.

The high standard which has been set in the care and maintenance of the Cemetery has been continued. Many small changes were made where the necessity appeared to exist and the force of men has been kept unusually busy throughout the season.

Arrangements have been completed, to extend the system of water-works well into the new portion of the Cemetery, a fact which will undoubtedly be a source of satisfaction to lot owners, and greatly facilitate the work of the Cemetery.

River Avenue, easterly and westerly from Willow Avenue, has been extended and laid out, and strengthened by a substantial stone bulkhead. New lots have been completed in the

new portion of the Cemetery, and Halcyon Avenue, from Winchester Avenue to River Avenue, opened for use.

In connection with the work of this nature, the following results are taken from the Superintendent's report to this Board, and compared with the figures obtained in 1892, viz.: —

	1892	1893
Number of lots prepared	21	27
Estimated value of same	$5,255.14	$4,050.00
Number of lots ready for sale	163	140½
Estimated value of same	$50,109.69	$46,156.34
Number of single graves ready for sale	54	73
Estimated value of same	$1,080.00	$1,460.00
Number of interments	659	656
Number of interments in cemetery (total)	18,392	19,036
Number of removals to other cemeteries	24	12
Number of burials (Overseers of the Poor)	30	43

The lots and graves which have been laid out, are being rapidly sold, and the Board has finally requested the City Engineer to prepare a plan of the land at its disposal for the purposes of burial, so that the remainder of the territory may be laid out in a systematic manner.

When this plan has been submitted, an accurate estimate can be formed of the period during which lots may be sold in the Cemetery. By a fair calculation, it would seem that, within five years, the City of Cambridge will be compelled to secure more territory for Cemetery purposes. It appears prudent that some action be taken toward this end before the actual necessity has arisen.

Favorable and immediate consideration is recommended.

New Gateway.

In the last and several previous reports, we urged upon the City Council the necessity of a new gateway and fence at the main entrance to the Cemetery grounds. We are pleased to report the completion of the gateway, and feel that the improved appearance of this portion of the Cemetery amply repays for any expense or labor incurred.

An appropriation of $2,500.00 was made for the erection of

the gateway and adjoining fence in December last, and was deemed at the time sufficient for the purpose. When the proposals of the different contractors were received, it was found that the erection of the fence must be deferred till another season, although a new fence was even more indispensable on the score of necessity, than the gate itself.

The contract for the erection of the gateway was signed February 25th, 1893, and the work was accepted by this Board, September 20th, 1893.

Ward One Burial Ground.

The neat appearance of this ground has been sufficient evidence of the care which was bestowed upon it. It seems almost an impossibility to maintain a burial ground, of as great antiquity as this, so that it will present an orderly and respectable appearance. Too often, these old burial grounds,—reminders of the earliest days of the community, — are neglected, the stones are allowed to crumble and become displaced, and an air of general decay is apparent.

The encroachements of time and vandalism produce disastrous results. While it is not possible to maintain the highest standard of excellence, still this Board believes that no effort has been spared to keep this ground, its monuments and markers, in a condition that would be creditable to the municipality. The expense of maintenance has been $286.06.

Soldiers' Lot.

We would again note the limited space remaining for interments. When the present Soldiers' Lot was dedicated in 1874, it was supposed that it would be sufficiently large to meet any demands which would be made upon it. At the present time there is but a small remaining space and immediate action must be taken to increase the capacity for burials, either by some method of enlargement of the present lot or by seeking some additional location in another part of the Cemetery. It seems desirable, too, that a limitation be placed upon interments in this lot. There appears to be a widespread diversity of opinion in reference to those who might properly be interred in it. It is held, that the intent in supplying this burial place was to pro-

vide a resting place for the remains of those soldiers and sailors of the late war, who might die in indigent circumstances. This opinion seems to coincide with the belief of the Board of Cemetery Commissioners for the year 1874, as stated in the annual report of that Board to the City Council, in which is stated, "that the Lot is devoted to the purposes of burial for all soldiers and sailors of the late war, who may die within the limits of the City, and for whom no other provision shall be made."

Others appear to believe that any honorably discharged soldier or sailor of the late war should be interred therein, on request. In order that there may be a definite understanding in this matter, this Board recommends that the City Council consider this question, and render a decision at an early date.

It is also recommended that the authorization of the City Council be given this Board to extend the Soldiers' Lot in the manner which may appear to it to be most feasible.

This Lot has received careful and tender attention, and has presented a beautiful appearance throughout the season. During the past year there were nine (9) interments, making a total of 108.

The following expenditures have been made on the Lot:—

For headstones	$236 00
For foundations	45 00
For care and repairs	105 00
Total.	$368 00

New Iron Fence.

For several years past, this Board has remarked upon the decayed and unsightly condition of the fence and gateway at the entrance to the grounds. The construction of the new stone gateway removes the more unsightly feature, but the decayed condition of the adjoining fence cannot fail to attract notice and general attention. Not to speak of the lack of harmony with the new structure, it is at present in such a dilapidated state that its immediate removal is imperative. Patching is well-nigh impossible, and the construction of a new fence of wrought iron is earnestly recommended. As this work will entail an expenditure of $1200.00 to $1500.00, a special appropriation is neces-

sary, and the City Council has already been requested to provide for it from the surplus revenue of this department for the current year. With the erection of a new iron fence to extend from the existing stonewall to the Mount Auburn property, it is believed that further provision in this direction, will not be necessary.

We would respectfully call the attention of the City Council to the defective grading of Coolidge avenue, in front of and near the entrance to the Cemetery. The roadway is elevated and inclined to such a degree that it acts as a natural watershed for the surrounding territory, causing great inconvenience and being a source of damage to the Cemetery grounds. An appeal has been made to the Superintendent of Streets to remedy the difficulty by lowering the grade of Coolidge avenue from the foot of the hill, north of the main entrance, to a point beyond that entrance to the Cemetery, which is near the house of the Superintendent. This appeal has been without avail, as no provision had been made in the appropriation for the Street Department for such a purpose. This change in the grade of the street should be made, and a suitable number of catch basins to drain the surface water should be placed in position, during the coming season, and it is hoped that proper appropriation will be provided.

Before closing this report, we desire to note the retirement from this Board of Mr. David Ellis and Mr. John F. O'Brien, both valued members, who gave freely of their experience in counselling and advising, and who always manifested an active interest in matters which were being considered.

Messrs. Henry A. Doherty and Herbert A. Chase have been appointed to membership on the Board.

A schedule of material, tools and property on hand December 1st, with their estimated value, is appended.

Respectfully submitted,

GEO. S. SAUNDERS,
NATHAN C. LOMBARD,
WILLIAM A. BERTSCH,
CHAS. O. WELCH,
HENRY A. DOHERTY,
HERBERT A. CHASE,

Commissioners of Cambridge Cemetery.

List of Stock, Tools, etc., Cambridge Cemetery.

Two doz. garden trowels, 1 doz. edging knives, $\frac{1}{2}$ doz. scythes, $\frac{1}{4}$ doz. scythe snathes, 6 doz. scythe stones, 1 doz. scythe rifles, $5\frac{1}{2}$ doz. watering pots, $\frac{2}{3}$ doz. garden wheelbarrows, $\frac{2}{3}$ doz. dump wheelbarrows, $\frac{1}{4}$ doz. hedge trimmers, $\frac{1}{3}$ doz. sod mauls, $\frac{1}{3}$ doz. sod lifters, $\frac{2}{3}$ doz. garden spades, 1 doz. garden hoes, $\frac{1}{6}$ doz. garden forks, $3\frac{1}{2}$ doz. wooden rakes, $1\frac{2}{3}$ doz. iron rakes, $6\frac{1}{2}$ doz. grass hooks, $\frac{1}{3}$ doz. lawn mowers, 1 grind stone, 1 doz. corn brooms, $1\frac{1}{6}$ doz. snow shovels, 3 doz. iron shovels, L. H. Rd. pt., $\frac{1}{3}$ doz. iron shovels, D. H. sq. $\frac{1}{6}$ doz. iron shovels, L. H. sq., large, 1 post spoon, L. H., $\frac{3}{4}$ doz. picks, 1 chisel pick, $\frac{1}{4}$ doz. grubs, $\frac{1}{3}$ doz. axes, 2 street hoes, 5 biers, $\frac{1}{2}$ doz. grave sheets, 2 grave hooks, 2 grave ropes, 4 sets grave straps, rubber, 3 sets grave straps cotton, 4 sets grave cross sticks, 1 set of stone cutter's tools, 5 iron crow bars, 1 paving rammer, 2 stone hammers, 1 sledge hammer, 1 stone derrick, small, 1 hydraulic jack, 4 ladders, assorted, 6 barrels cement, 6 cement tubs, 5 cement pails, 6 sand screens, 6 block and tackles, 4 iron chains, carpenter's tools, saws, hammers, planes, bitts and augers, 2 cross cut saws, 5 box hooks, 1 set stencils, 125 pounds nails, assorted, 2 lanterns, 1 express wagon and cover, 2 horse carts, 1 horse sled, 1 stone drag, 1 hand cart, 10 cords manure, 1 snow plough, 5 hay rakes, 5 manure forks, 1 express harness, 1 cart harness, 1 trace harness, 6 barn pails, 1 black mare, 500 feet spruce boards, 200 feet pine boards, 100 feet spruce, 2 inch, 2,000 case stakes, 400 boundary stakes, 375 feet runs, 8 feet, 11 set grave planks, 22 pick handles, 18 axe handles, 500 brick, 25 perch blue stone, 8 slate graves, 12 sets brick grave covers, 1 stove, 1 furnace, 2 iron safes, 12 office chairs, 1 standing desk and chair, 1 office table, 1 letter press and table, 1 clock, 8 tons furnace coal, 6 scrub brushes, 375 feet galvanized iron water pipe.

The value of the foregoing property is $1,933.64.

REPORT

OF THE

CITY ENGINEER.

OFFICE OF CITY ENGINEER, CITY HALL,
CAMBRIDGE, December 1, 1893.

To the Honorable the City Council :—

I HEREWITH respectfully submit the twenty-seventh annual report of the City Engineer, showing the operations and expenses of the Departments of Engineering and Sewers, for the year ending December 1, 1893.

Office.

A brief summary of the year's work is as follows :—

For the Street Department.

Number of street lines given	127
Number of street grades given	160
Number of cars measured (cracked stone)	554
Number of streets on which paving, curb, etc., was measured	88
Number of miscellaneous measures and surveys	35
Number of assessments prepared	265
Number of profiles prepared	34

For Sewer Department.

Number of lines given	64
Number of grades given	83
Number of sewers measured	42
Number of plans or profiles prepared	25
Number of sewer assessments prepared	246

For Private Parties.

Number of street lines given	70
Number of street grades given	29

Miscellaneous Work.

Number of houses measured	1005
Number of plans or profiles prepared	49
Number of surveys or levels made	114
Number of streets renumbered	17
Number of surveys at cemetery	14

There are now on file in the office 3,847 plans.

There have been employed during the year 10 assistants and a clerk. Five of these and the clerk have been employed throughout the whole time.

Work on the new city map, which was referred to in the last annual report, was begun in the early part of the season. Owing to the pressure of other work it was not completed as expected, so as to have it lithographed this year. It is now, however, well advanced toward completion, and will be ready for lithographing at an early day.

Financial.

The appropriation for engineering (including $500 for new city map) was		$10,500 00
Expended for salary of engineer and assistants	$9,230 31	
Expended for sundry supplies	413 69	
Unexpended balance	856 00	
		$10,500 00

Bridges.

Some statistics relating to the bridges which are built and maintained by the city are given in the following exhibit:—

Bridges Maintained wholly or in part by the City of Cambridge.

Name of Bridge.	Location.	Materials in Substructure.	Materials in Superstructure.	Date of first Construction.	Total length of bridge.	Length in Cambridge.	Width of Bridge.	Width at Draw.	Draw opening.	Surface area of Bridge in Cambridge.
							ft.	ft.	ft.	Sq. ft.
Boylston Street Bridge.....	over Charles River.....	Oak Piles.....	Wood..	1662	208.0	106.0	28.00	20.35	36.00	2,830
Brookline Bridge.....	over Charles River.....	Oak Piles.....	Wood..	1850	750.0	175.0	31.00	24.00	36.00	5,299
Craigie Bridge.....	over Charles River.....	Oak Piles.....	Wood..	1808	1268.0	634.0	65.00	50.00	35.83	41,210
First Street Bridge.....	over Broad Canal.....	Oak Piles.....	Wood..	1892	115.0	115.0	45 00	32.00	36.00	4,707
Fresh Pond Avenue Bridge.	over Pipe Way.....	Granite Masonry.	Steel...	1893	75.0	75.0	58.00			4,350
Harvard Bridge.....	over Charl s River.....	Granite Piers.....	Iron....	1891	2166.0	1113.0	69 33	48.33	36.67	75,514
Huron Street Bridge.....	over Watertown Branch of the Fitchburg R. R.	Granite Masonry.	Steel...	1893	93.63	93.63	58.00			5,430
Prison Point Bridge.....	over Miller's River.....	Oak Piles.....	Wood..	1833	200.00	60.0	50.00	30.00	36.00	2,640
River Street Bridge.....	over Charles River.....	Oak Piles.....	Wood..	1810	345.00	187.0	40.00	28.00	36.25	7,263
Sixth Street Bridge..... ...	over Broad Canal.....	Oak Piles.....	Wood..	1873	79.5	79.5	42.00	32.00	32.50	3,014
Third Street Bridge.....	over Broad Canal.....	Oak Piles.....	Wood..	about 1832	81.0	81 0	35.00	27.00	30.00	2,595
Walden Street Bridge.....	over Fitchburg R. R.....	Granite Masonry.	Steel...	1892	64.0	64.0	42.00			2,688
Western Avenue Bridge....	over Charles River	Oak Piles.....	Wood..	1824	330.0	168.0	34.00	27.50	36.00	5,595
West Boston Bridge.....	over Charles River.....	Oak Piles.....	Wood..	1793	2740.0	1370.0	50.00	38.00	36.00	68,500
					8515.13	4321.13				231,635

By this exhibit it appears that there are maintained by the city 4321. feet, or about $\frac{4}{5}$ of a mile in length of bridge work, having an area of 231635. square feet, or 5.31 acres of surface, this surface being composed almost entirely of spruce planking.

The following bridges deserve special mention :—

Fresh Pond Avenue Bridge.

Upon request from the Water Board plans and specifications for a bridge in the line of the new avenue called Fresh Pond Avenue, at its crossing over the cut at the pipeway near Fresh Pond, were prepared and on May 26, 1892, a contract was signed with the Massillon Bridge Company, of Massillon, Ohio, for building the superstructure of the same for the sum of $5,700.00.

The bridge was completed by the company, November 11, 1893, in a very thorough and satisfactory manner.

The masonry for the abutments and piers was put in by Messrs. Wight & Scorgie. The excavation and grading were done by Michael O'Sullivan, all of Cambridge.

Nearly all the metal of the bridge is of mild steel. The end portions rest on 6 Z bar columns, the middle portion is carried by 3 arches or ribs of steel resting on granite piers set in the sloping bank.

The sidewalks are enclosed with ornamental railings. The roadway is 40 feet wide, the sidewalks 9 feet each. The total cost of the bridge, foundations, etc., was $8239.74.

Huron Street Bridge.

This bridge referred to in the last annual report as being under construction by R. F. Hawkins, of Springfield, was completed by him January 9, 1893. The superstructure is almost entirely of mild steel, the flooring only being of wood. The bridge is cantilever in principle, with a fixed girder at each end, and a suspended girder in the center over the railroad tracks. The roadway is 40 feet wide, and the sidewalks 9 feet each, enclosed by an ornamental railing.

Total cost of the bridge, foundations, grading, etc., was $11,002.72. The construction and general appearance of these two bridges is shown on the cuts accompanying.

Fresh Pond Avenue Bridge, over Pipeway near Fresh Pond.

Third Street Bridge.

Parts of the draw have become decayed and are now being repaired. The bridge will then be in fair condition.

Sixth Street Bridge.

Needs resheathing with spruce plank, will then be in fair condition.

Walden Street Bridge.

The iron work should be thoroughly painted the coming year.

The following table shows the streets which have been accepted and laid out by the city the past year.

Streets Laid Out and Grades Established from December 1, 1892, tc December 1, 1893.

STREET.					PLAN.		
Name.	From	To	Length in feet.	Width in feet.	Accepted.	Made by	Date.
Adams street*	Concord ave	Grove st	2,200	40	April 27, 1893	City Engineer	Nov. 10, 1891
Avon Hill street	Hillside ave	Bellevue av	433	40	Nov. 11, "	E. F. Bowker	Oct. 12, 1892
Fayerweather street	Reservoir st	Vassal lane	1,621	50	Nov. 3, "	E. F. Bowker	June 1, 1893
Grove street*	Adams st	Cushing st	1,700	40	Apr. 27, "	City Engineer	July 7, 1892
Haskell street	North ave	Spruce st	504	40	Nov. 3, "	W.A.Mason & Son.	Aug. 5, 1893
Kidder street	North ave	Somerville line	289	30	June 14, "	E. F. Bowker	May 23, 1893
Mt. Pleasant street	S. of Lambert ave.	Southerly	25	40	May 17, "	Arthur Hodges	May 29, 1877
Myrtle avenue	Kirkland st	Magnolia ave	516	30	Nov. 3, "	E. F. Bowker	Aug. 28, 1893
Osborn street	Main st	State st	227	40	Oct. 6, "	E. F. Bowker	June 6, 1893
Pilgrim street	Brookline st	Sidney st	498	40	Nov. 11, "	City Engineer	Nov. 9, 1886
Richdale avenue	Lambert ave	Walden st	1,057	45	May 17, "	W.A. Mason & Son.	Nov. 1884
Second street*	Thorndike st	S. line Am.Net & Twine Co.	942	50	June 14, "	City Engineer	April 17, 1890
Thorndike street	Sixth st	Ninth st	531	40	May 4, "	E. F. Bowker	Sept. 6, 1892
White street	Cottage pl	Somerville line	304	25	July 13, "	W. A.Mason & Son.	June 30, 1884

*Grade established.

Total lenth of streets accepted during the year, 6005 feet=1.14 miles.
Total length of streets accepted December 1, 1893, 82.031 miles.

Huron Street Bridge, over Watertown Branch Railroad.

The total length of accepted streets now in the city is 82.031 miles.

Huron Street and Fresh Pond Avenue.

The portion of this avenue from Concord avenue to the Watertown Branch Railroad was laid out by the city in 1892 and an agreement entered into by which the city was to grade and finish the street from Concord avenue, to near Reservoir street, and the abuttors were to grade and finish the balance.

The part called Fresh Pond avenue from the Watertown Branch Railroad to Woodlawn avenue at Cushing street has been constructed by the city, the grading nearly completed, and a bridge built over the cut at the pipe way.

The whole avenue has a uniform width of 70 feet and a total length of 6320 feet. Of this length 2573 feet have been macadamized in a very thorough manner by the city; 210 feet have been finished by the city at the expense of the owners, the balance, 3537 feet, has been sub-graded and a small portion of this has been finished in an indifferent manner by the owners.

Steps should be taken to finish this fine avenue as soon as the tracks of the street railway, for which locations are now granted, are laid. The total expense to the city of this improvement to date is as follows: —

Cost of grading, land damages, etc., Concord avenue to land of F. A. Kennedy	$11,854 09
Cost of grading, land damages, etc., Watertown Branch Railroad to Cushing street	12,164 93
Cost of bridge over railroad	11,002 72
Cost of bridge over pipeway	8,239 74
Total	$43,261 48

To the above amount may be added the cost of land for the avenue opposite Cushing street, and the cost of finishing the small area not yet macadamized and finished.

Cemetery.

The usual work at the cemetery has been performed during the year.

The plans for a new entrance gateway referred to in the last report were completed and on February 25, 1893, a contract

was signed by Austin Ford & Son of this city to build the same, including the iron work of the gates. These were furnished the contractors by Morss & Whyte, of Cambridge, who deserve special credit for doing a very thorough and artistic job.

The total cost of the work was $2,668.00.

Sewers.

As shown in the following table 12,489.7 feet or 2.365 miles of sewers have been constructed during the year, making the total length in the city 93.498 miles. The total cost of these sewers to date is $1,163,230.08.

Sewers Constructed Between Dec. 1, 1892, and Dec. 1, 1893.

Location.			Construction.							Total cost.
Street.	From	To	Material.	Size in Inches.	Av. depth of Cut.	Man-holes	Lamp-holes	Inlets	Length in feet.	
Arrow	Bow St.	Main St.	Portland pipe	12 and 10	8.9	1	1	39	469.0	$506 43
Auburn Place	End of old sewer	Near Mt. Auburn St	" "	10	7.1		1	22	256.5	159 47
Auburn	" " "	Near Magazine St.	" "	12	7.2			6	51.6	32 62
Auburn	" " "	Near Brookline St.	" "	8	6.6			4	96.9	36 51
Belmont	" " "	Near Holworthy St.	" "	10	9.5	1		16	188.7	221 99
Broadway	Norfolk St.	Near Prospect St.	" "	12 and 10	7.1	2	1	23	583.7	471 64
Camelia Ave.	Cambridge St.	Near Line St.	" "	10	8.9	2		38	519.9	552 03
Cameron	North Ave.	Northeasterly	" "	12 and 10	6.9	1	1	39	590.0	706 82
Chestnut	End of old sewer	Near Brookline St.	" "	10	7.5	1		18	221.5	147 60
Concord Ave.	" " "	Near Wyeth St.	" "	10	8.2		1	8	104.1	88 49
Davenport	Oxford St.	Saginaw Ave	" "	10	7.5			11	151.0	75 43
*First	Binney St.	Broad Canal	Brick	31 x 24 28½ x 22 26 x 24	12.2	3		80	939.9	7,166 00
Frost	Forest St.	Southerly	Portland pipe	10	6.6	1		11	183.8	130 00
Garden	Near Kildare St.	Near Wyeth St	" "	12, 10 and 8	8.6	1	1	30	404.3	442 57
Green	End of old sewer	Near Brookline St.	" "	12	5 9	1		7	60.1	84 92
‡ Hovey Ave.	Pinta St.	Southerly	" "	10	5.4		1	28	345.3	
Huron	End of old sewer	Near Lake View Ave.	" "	15 and 10	6.6	1	1	19	234.8	340 52
Kildare	Dublin St.	Northeasterly	" "	10	8.6	1	1	24	375.7	335 94
Kildare	Garden St.	Near Dublin St.	" "	10	7.2		1	13	203.2	172 70
Leonard Ave.	End of old sewer	Near Line St.	" "	10	8.6			8	93.8	74 58
Moore	School St.	Near Washington St.	" "	10	7.4		1	14	170.2	151 74
Museum St. and private lands.	Oxford St.	Near Somerville line	" "	24, 18, 15, 12 and 10	7.6	4	1	87	1532.3	2,290 99
‡ Nina	Hovey Ave.	Easterly	" "	12 and 8	3.9	2	1	31	417.9	

*Pile foundation. ‡For cost see Pinta Street.

Sewers Constructed Between Dec. 1, 1892, and Dec. 1, 1893. (Continued.)

Location.			Construction.							Total Cost.
Street.	From	To	Material.	Size in Inches.	Av. depth of Cut.	Man-holes	Lamp-holes.	Inlets	Length in feet.	
Oak Place and Private Lands	Cambridge St.....	Northerly.....	Portland pipe.	10	7.2	1	1	20	346.2	$244 53
Pinta Street and Private Lands	Myrtle Ave.....	Near Cambridge St...	" "	15, 12 and 10	5.3	2	1	48	710.1	†1,075 00
Portland	Thorndike St.....	Northeasterly	" "	15	10.1		1	1	36.1	50 00
Saginaw Avenue	Davenport St..... ...	Northwesterly.....	" "	10	6.9		1	11	164.7	82 28
‡Santa Maria...	Nina St.....	Near Cambridge St....	" "	12 and 10	4.4	1	1	36	472.5	
Spruce Court...	Spruce St.....	Northeasterly.....	" "	10	5.0		1	7	198.6	102 85
Spruce	Haskell St.....	Near Fairfield St.....	" "	10	8.0		1	15	254.9	136 54
Tannery	North Avenue.....	Northeasterly	" "	15 and 12	8.8	2		45	675.3	*1,323 52
Third	Charles St.....	Near Bent St.....	" "	12	9.0	1	1	20	232.9	310 07
Vine.....	End of old sewer.....	Fifth St.....	" "	10	9 1	1		4	93.0	144 16
Walden Place..	Walden St	Southeasterly.....	" "	10	7.5		1	10	152.8	76 00
Washington....	Columbia St.....	Near Pine St	" "	10	5 5		1	13	177.0	116 87
Westley Avenue	Harvey St.....	Northerly	" "	8	4.6		1	8	170.5	63 19
Willis Court....	Mt. Auburn St.....	Easterly.....	" "	18 and 12	6.5	2	1	36	610.9	541 98
						32	25	850	12489.7	$18,456 08

‡For cost see Pinta St. *Includes cost of 539 feet of drain for Almshouse. †Includes cost of Hovey Ave., Santa Maria and Nina St. Sewers.

Surface drains constructed and paid for by the Street Dept. { River St. N., Charles River, length 312 ft., cost $134.92. Third St. N., Broad Canal, length 150 ft., cost $104.52.

Sewers Reconstructed Between Dec. 1, 1892 and Dec. 1, 1893.

Location.			Construction.							Total Cost.
Street.	From	To	Material.	Size in inches.	Av. depth of Cut.	Man-holes.	Lamp-holes.	Inlets.	Length in feet.	
Green.....	Sidney St.....	Westerly.....	Portland and Akron pipe.....	12	5.9			32	438.2	$452.69
Franklin..	Bay St.....	Westerly.....	Portland pipe.....	15	7.7	1		27	364.2	628.67
Thorndike	First St.....	Near Second St.....	Portland pipe covered with brick	15	9.1			35	419.6	1,194.04
						1		94	1222.0	$2,275 40

The construction of the sewers has been done by day labor, by the Superintendent of Sewers, under the general direction of the City Engineer.

There have been licensed as drain layers 21 persons, to whom have been issued 586 permits for doing work connected with private drains.

Catch Basins.

On petitions of sundry persons there have been built during the year 53 catch basins at a cost of $4,409.75.

The cleaning out of catch basins has been done by the day as usual, 4,231 loads of dirt have been taken from 1,359 catch basins. Repairs have been made on 44 catch basins.

Bridge Street Sewer Outlet.

The usual dredging and cleaning of flats about the mouth of this sewer has been done.

The dredging being done by Boynton Brothers, of Boston, under a contract dated June 6, 1893, 3361.5 cubic yards of solid filth was removed at a cost of 65 cents per cubic yard.

The total cost of the work, $\frac{5}{9}$ of which was paid by the City of Somerville, was $2,437.15.

Broad Canal and Lower Port District.

Complaint was made by property owners of the condition of Broad Canal and the drainage of the lower portions of the city in the vicinity of Main and Third streets.

This section has no sewerage system; draining directly into the Canal or Charles River. The sewer in First street to Broad Canal built this year should be extended across the canal and into Main street the coming year.

Financial.

SEWERS: CONSTRUCTION, SUNDRY SEWERS.

Appropriation	$20,000 00
Transferred from Sewers Maintenance	5,000 00
Surplus Revenue	7,528 26
Total	$32,528 26

Amount expended	$23,317 37
Transferred to Street Department	800 00
Transferred to Overseers of the Poor Department	4,968 18
Transferred to Sewers Maintenance	1,779 67
Balance unexpended	1,663 04
Total	$32,528 26

SEWERS MAINTENANCE.

Appropriation	$23,000 00	
Transferred from Sewers Construction	1,779 67	
Total		$24,779 67
Expended	17,279 67	
Transferred to Sewers Construction	5,000 00	
Transferred to Street Department	2,500 00	
Total		$24,779 67

Metropolitan Sewer.

The sections of the Metropolitan sewer within the limits of Cambridge are now substantially completed. While the major part of the main trunk sewer is built, yet some of the more difficult portions, a part of the outfall sewer at Deer Island, various pumping stations, and syphons at the different river crossings, yet remain to be built.

It now seems probable that the system may be so far completed as to be put in operation in the early part of 1895.

To be ready for the early connection of the Cambridge sewers with this system, the various changes and additions necessary should be made the coming season.

Water Works.

Ice Guard at Roberts' Dam.

On petition of William Roberts the Water Board decided to place an ice guard across Stony Brook just above the dam of Mr. Roberts at the South street bridge.

The guard is built of oak piles capped with hard pine. The work was done by Perkins & Ruggles at a cost of $1,150.59.

Occasion was taken during the low water in the basin in

September to place a leaf screen in front of the portal to gate chamber at the dam. The screen is of iron covered with wire, built by Morss & Whyte, of this city at a cost in place, of $388.78.

Stony Brook.

Water has wasted over the dam during 133 days as follows:

December, 1892,	50,421,800 gallons
January, 1893,	
February, 1893,	533,087,600 gallons
March, 1893,	1,813,292,300 gallons
April, 1893,	1,069,870,000 gallons
May, 1893,	1,224,998,900 gallons
June, 1893,	44,158,600 gallons
July, 1893,	
August, 1893,	
September, 1893,	
October, 1893,	
November, 1893,	
Total	4,735,829,200 gallons

The highest water of the year was reached March 15, 1893, at elevation 82.83 or 1 83-100 feet above the crest of the dam. 212,700,000 gallons passed the dam that day. The highest water in Fresh Pond was May 5, 1893, elevation 17.07 or 22-100 feet above water mark of the pond.

The lowest water in Stony Brook was reached September 9, 1893 at elevation 64.50 or 16 50-100 feet below the crest of the dam. The lowest water in Fresh Pond occurred November 3, 1893, at elevation 11.67 or 5 18-100 feet below the high water mark of the pond.

The above figures show a consumption of the water held in store of 472,880,000 gallons out of the total of 700,000,000 gallons available without additional pumping.

Agreeably to instruction received from the Water Board, examinations have been made and a site selected for a large storage basin, situated in the towns of Lincoln and Lexington and the City of Waltham on Hobbs Brook, a feeder or branch of Stony Brook. Preliminary surveys have also been made to determine the flow line and quanity of water which might be stored in this basin.

Table Showing Rainfall at Kendall Green and Roberts Dam in Weston, and at the Fresh Pond Pumping Station (Cambridge Water Works) and the Harvard Observatory, Cambridge, December 1, 1892, to December 1, 1893.

Day of Month.	1892. DECEMBER.				1893. JANUARY.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.				JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				1893. NOVEMBER.			
	Kendall Green.	Roberts Dam.	Fresh Pond.	Harvard Obs.	K. G.	R. D.	F. P.	H. O.	K. G.	R. D.	F. P.	H. O.	K. G.	R. D.	F. P.	H. O.	K. G.	K. D.	F. P.	H. O.	K. G.	R. O.	F. P.	H. D.	K. G.	R. D.	F. P.	H. O.	K. G.	R. D.	F. P.	H. O.	K. G.	R. D.	F. P.	H. O.	K. G.	R. D.	F. P.	H. O.	K. G.	R. D.	F. P.	H. O.	K. G.	R. D.	F. P.	H. O.
1	T			.11	.48		.74				.25	T	.45	.41		.41					.26		.42	.19									T		T	.26		.36								
2					.32	.84		.83			.05	.23									.25	.58	.26	.24													.34		.30								
3	T		.03						.59		.14	.06		.08					.01		.50	.38	4.18	.21	T		T		T												.06		T					
4	T			.02			T			.46			.58	.14	.02	.38	.05			.02	2.87	1.37	.31	2.67											.92				T		.03	.68		.66			
5					.32		.28	.01				T				.67		.09	.27			.50	.01	T					T		.23		1.58	1.09	1.27	1.70								.64		.60	
6	.20		.09		.88	.60	.03	.28	.33		.38						.29	.17		.18			T	T	.25		.15		.19	.30		.19	1.02	.93	.75	T										
7				.11				T	.26	.34		.31					.33	.48	.42							.24		.07					.92	1.43	.37	.95	.54		.41			.01	T				
8	.41		.67	.11										.16			.34	.30	.26	.45									T	T	.01			1.16		.18		.54		.30							
9		.81		.53	.14		.43				.41		1.19		.98	.27		.27		.22																				T							
10	T		.02		.40	.58		.50	1.04		.31	.71		1.02		.86																														
11										1.02		T			.14																																
12					.04		.01					T	.39	.30	.10	.16							.01				.03		T		.06			.04												
13			.15		.02			.01	1.15	.83	1.38	.07		.17							.36		.49	.17	.15		.20	.01	.10	.22		.03		.05		T					1.17						
14	.60	.30	.21	.14			.06		.57	.43		1.30	.68		.85				.38		.11	.37		.21	.46	.20	.09	.30									.04		.92	.52	.08	1.32		.11		
15	T			.12	.04		.01	.05						.86		.82	.72	.33	.34	.34						.60	.02								T						.13		.06	.14	
16						.10		.04										.24		.23	.11		1.39	T			.03	.01							.51		.55					.17			
17					.05						.81										1.13	1.25	.03	1.24	.30		.18	.08				.06		.12			.50		.47							
18									1.43	.94	.13	.84										.06		.01		.16		.09	.56		.70	.01	.06		.08						T				
19			.05							.09	.13																			1.10		.62			.05	.03	.25		.24			T				
20	.06	T		.07					.20	.24	.06						.11		1.13													.02	.05	.72	.03		.18		.21			T			.01	
21											.70	.08					.73	.97	.07	1.02												1.49	.70	1.01	1.19								.63			
22									1.74	1.33	.83	1.79			.07			.05	.01	T					.40		1.13	.13	.71		.95			.68		.44	T						.63		.09	.69	
23					.34	T	.01				.25	1.37	.10	.12	.10	.07			T	T					.48		.33	.81	.16	1.00	.09	1.01			.13		.01		.03			2.10	.01		.63			
24								.01	.31	.26		.31				.07										.91		.12		.16		.03	.33		.16	.20				2.09	1.93	.05	1.80		.10		
25	.02	T	.01		.05		.03	.04			.22	.01					.09		.11	.02						.14			.10		.13		.35			.03		.08	.02		.10					
26				T					.30	.25		.20						.12		.03	T		.05				.02	T	T	.17	.09	.12						.09								
27																	.16		.17	T	.30		.15	.01							.05				T		T			.27			.42		
28							.04				.38							.16		.15		.20		.11										T				.71	.60	.03	.30	.47	.45	.02	.35	
29					.26	.23	.21	.04											.01										T		T	T	.37		.41	.28		.05								
30							.02	.20					T						.07	T													.34		.12		.08		.05							
31								.02																																						
	1.29	1.11	1.23	1.21	3.34	2.35	1.87	2.03	7.92	6.19	6.43	7.28	3.39	3.02	2.50	3.71	2.82	3.18	3.25	2.66	5.89	4.71	7.30	5.06	2.04	2.25	2.18	1.62	1.82	2.95	2.26	2.05	5.80	6.89	5.95	5.20	1.60	1.73	1.76	1.35	3.72	3.15	3.77	3.46	1.91	1.59	1.99	1.79

With the increasing consumption of water and consequent draft on the quantity held in store, and the possibility of an exceptionally dry season like that occuring in 1880 and 1883, it would seem as though same steps must soon be taken to supplement the present supply for the dry months of the summer.

The usual tables and data concerning rainfall will be found appended.

Respectfully submitted,

L. M. HASTINGS,

City Engineer.

Table showing Comparison by Months of number of days in which rain fell and total precipitation at Kendall Green, Roberts' Dam, Fresh Pond and Harvard Observatory, December 1, 1892, to December 1, 1893.

		1892.	1893.											Total.
		Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	
Kendall Green.	No. of days in which rain fell.	5	13	11	6	9	9	6	6	9	6	3	4	87
	Total precipitation.	1.29	3.34	7.92	3.39	2.82	5.89	2 04	1.82	5.80	1.60	3.72	1.91	41.54
Roberts' Dam.	No. of days in which rain fell.	2	5	11	7	11	8	6	6	11	6	4	5	82
	Total precipitation.	1.11	2.35	6.19	3.02	3.18	4.71	2.25	2.95	6.89	1.73	3.15	1.99	39.52
Fresh Pond.	No. of days in which rain fell.	8	12	16	9	13	11	10	8	12	8	8	7	122
	Total precipitation.	1.23	1.87	6.43	2.50	3.25	7.30	2.18	2 26	5.95	1.76	3 77	1.99	40.49
Harvard Observatory.	No. of days in which rain fell.	8	12	13	9	10	10	9	7	11	6	5	5	105
	Total precipitation.	1.21	2.03	7.28	3.71	2.66	5.06	1.62	2.05	5.20	1.35	3.46	1.79	37.42

REPORT

OF THE

SUPERINTENDENT OF STREETS.

To the Honorable the City Council:

GENTLEMEN:—In accordance with the requirements of the ordinance relating to streets, I have the honor to submit my fourth annual report for the year ending November 30, 1893.

It has been customary in former reports to give the "Maintenance" account of this department first; this year that account has been divided, and separate appropriations made for "cleaning streets," "collection of ashes," "construction and repairs," and "maintenance," and the various appropriations of this department are here given in alphabetical order, as they appear on the Auditor's monthly statement.

Bridges.

Appropriation		$4 500 00
EXPENDED.		
Draw-tenders' salaries	$2,730 96	
Contract, King Bridge Co.	918 75	
Displacement of tidewater	26 25	
Drilling holes in granite	12 00	
Fuel	5 95	
Hardware	11 61	
Lumber	85 91	
Oakum	4 50	
Planking Brookline Bridge	597 00	
		4,374 93
Balance		$125 07

The above amount has been expended in payment of salaries of drawtenders and the care and repairs of the several bridges in charge of the department; a detailed report of each bridge is as follows:—

Third Street Bridge.

Parts of the draw have become decayed and are now being repaired. The bridge will then be in a fair condition.

Sixth Street Bridge.

Needs resheathing with spruce plank, will then be in fair condition.

Walden Street Bridge.

The iron work should be thoroughly painted the coming year.

Wellington Bridge.

This bridge, which crosses what is known as Wellington Brook, will probably require rebuilding this year, but it is a small bridge and the expense will not be large.

The remaining bridges are in fairly good condition and will probably require only the usual annual repairs.

The following table, prepared by the City Engineer, shows the bridges in charge of this department.

Bridges Maintained wholly or in part by the City of Cambridge, and in Charge of Street Department.

Name of Bridge.	Location.	Material in Substructure.	Material in Superstructure.	Date of first Construction.	Total length of Bridge.	Length in Cambridge.	Width of Bridge.	Width of Draw.	Draw opening.	Surface area of Bridge in Cambridge.
										Sq. ft.
Boylston Street Bridge.....	over Charles River.....	Oak Piles.....	Wood..	1662	208.0	106.0	28 ft.	20 35	36 ft.	2,830
Brookline Bridge.....	over Charles River.....	Oak Piles.....	Wood..	1850	750.0	175.0	31	24	36	5,299
First St. Bridge.....	over Broad Canal.....	Oak Piles.....	Wood..	1892	115.0	115.0	45	32	36	4,707
Fresh Pond Avenue Bridge.	over Pipe Way.....	Granite Masonry.	Steel...	1893	75.0	75.0	58			4,350
Huron St. Bridge.....	over Watertown Branch Fitchburg Railroad.	Granite Masonry.	Steel...	1893	93.63	93.63	58			5,430
River St. Bridge.....	over Charles River...	Oak Piles.....	Wood..	1810	345.00	187.0	40	28	36 3 in.	7,263
Sixth St. Bridge.....	over Broad Canal.....	Oak Piles.....	Wood..	1873	79.5	79.5	42	32	32 6 in.	3,014
Third St. Bridge.....	over Broad Canal.....	Oak Piles.....	Wood..	about 1832	81.0	81.0	35	27	30	2,595
Walden St. Bridge.....	over Fitchburg R. R.....	Granite Masonry.	Steel...	1892	64.0	64.0	42			2,688
Western Avenue Bridge....	over Charles River.....	Oak Piles.	Wood..	1824	330.0	168.0	34	27.5	36	5,595

Cleaning Streets.

Appropriation		$22,000 00
EXPENDED		
Labor as per pay-roll	$14,288 92	
Teaming	6,092 50	
Sweeping-machines and repairs	612 47	
Road Scraper	392 00	
Tools, etc.,	143 94	
Grain	455 00	
Sundries	10 00	
		21,994 83
Balance		$5 17

The above amount has been expended as shown for labor and materials used in cleaning streets. Every accepted street in the city has been thoroughly cleaned twice this year and all the paved streets have been swept once every three weeks. In addition to this an attempt has been made to keep all the principal streets comparatively clean at all times, and for this purpose a considerable force of men and teams have been employed during the entire season. The first complete cleaning was made in April and took about six weeks time; the fall cleaning was begun on the first of November and completed that month. Fourteen thousand eighty-one loads were collected, of which 6,247 were sold.

I am of the opinion that if the sweeping of the paved streets were done at night, it could be done more quickly, economically and with better results, and shall during the coming year make the experiment on at least one street which has always caused us considerable cost and trouble.

Collection of Ashes.

Appropriation		$15,750 00
EXPENDED.		
Labor as per pay-roll	$13,544 86	
Carpentry	11 71	
Hardware, tools, etc.,	302 11	
Harness	19 50	
Hay and grain	1,267 46	
Horse covers	57 65	
Horse-shoeing	24 00	
Horses	450 00	
Lumber	11 09	
		15,688 38
Balance		$61 62

For the first time in the history of the department, a separate appropriation was made this year for the collection of ashes.

The above amount has been expended for labor, care and feed of horses, and expenses incidental to the work. The increase from year to year of the amount of ashes, etc., which must be collected and disposed of has necessitated an enlargement of the plant and this year, five new carts and an equal number of sleds were built by the regular workman in the department. New horses must be purchased, for these carts and drivers employed for them, which will materially increase the amount required for this department next year. The sale of ashes collected each year, has amonnted to about $1000.00 and if as proposed, the ashes are used by the Park Commission for filling, the revenue will be decreased to that extent. Twenty-seven thousand three hundred ninety-six loads were collected, and of these 7463 were sold, an increase over last year in the amount collected of over 3,000 loads.

The condition of the ash dumps in the several sections of the city has been the cause of more or less complaint, but it is obvious that little can be done to improve them, and to keep them at all times free from offensive and dangerous matter, without materially increasing the annual cost of collection of ashes.

Construction and Repairs.

Appropriation		$69,850 00

EXPENDED

Labor as per pay-roll	$31,344 96	
Broom stock	26 40	
Covering boilers	96 00	
Carpentry	1,107 29	
Carriage and wagon repairs	137 90	
Cash for sundries	6 48	
Door and windows	8 55	
Lock	2 83	
Expressage	1 05	
Fuel	734 41	
Fence	244 65	
Gravel	1,796 75	
Hardware, tools, etc.,	1,106 56	
Amounts carried forward	$36,613 83	$69,850 00

Amouuts brought forward	$36,613 83	$69,850 00
Harnesses and repairs	413 85	
Hay and grain	4,381 64	
Horses	740 00	
Horse medicine	32 67	
Horse covers	6 00	
Horse-shoeing	81 16	
Hoof stuffing	16 00	
Lumber, lime and cement	596 22	
Machine, engine and iron work	1,064 00	
Moving building	22 00	
Oil, paint, etc.,	206 44	
Oatmeal	19 60	
Packing, belting, etc.,	139 32	
Pipe and cement	81 45	
Painting street signs	5 25	
Sand	61 50	
Stone	14,248 43	
Teaming	10,941 38	
Use of horses	47 00	
Use of derrick	73 25	
Waste	28 17	
Wiring for electric lights	25 00	
		69,844 16
Balance		$5 84

This year an attempt has been made to show the amount of the street department appropriation which is available for actual repairs and reconstruction of streets, and at the beginning of the year, it was proposed to eliminate from the accounts the ordinary and incidental expenses of running the department. This has in a measure been done, although as will be seen by a reference to the classified list of expenses, there are a number of items which were charged to this appropriation which do not enter into the actual cost of repairing streets.

The following schedule shows the streets graded in each of the districts, an itemized account of the cost of each street, and the total cost in each district, the total cost of grading streets being $28,220.45 :—

District No. 1 (Wards 2, 3, and 4).

Clark street, from Harvard street to Washington street:		
Labor	$49 00	
Teaming	97 50	
Rolling	5 00	
Gravel	26 75	
		$178 25
Windsor street, from Front street to State street:		
Labor	$73 00	
Teaming	205 00	
Rolling	21 00	
Cracked stone and stone dust	410 00	
Gravel	32 50	
		741 50
Albany street, from Front street to Portland street:		
Labor	$43 00	
Teaming	435 00	
Filling	122 75	
		600 75
Windsor street, from Hampshire street to Main street:		
Labor	$400 00	
Teaming	380 00	
Rolling	75 25	
Cracked stone and dust	1,327 50	
		2,182 75
Columbia street, from Main street to Hampshire street:		
Labor	$298 00	
Teaming	126 00	
Rolling	38 50	
Cracked stone and dust	407 50	
		870 00
Winter street, from Bridge street to Fifth street:		
Labor	$216 00	
Teaming	185 00	
Rolling	35 00	
Cracked stone and dust	510 00	
Gravel	5 50	
		951 50
Thorndike street, from First street to Second street:		
Labor	$167 00	
Teaming	167 50	
Rolling	14 00	
Cracked stone and dust	342 50	
		691 00
Sixth street, at Railroad crossing:		
Labor	$31 00	
Teaming	42 50	
Cracked stone and dust	105 00	
		178 50
Amount carried forward		$6,394 25

Amount brought forward		$6,394 25
Second street, from Spring street to Bent street:		
Labor	$156 00	
Teaming	990 00	
Rolling	14 00	
Gravel	244 20	
		1,404 20
Fourth street, from Winter street to Bridge street:		
Labor	$60 00	
Teaming	68 50	
Rolling	14 00	
Cracked stone and dust	147 50	
		290 00
North street, from Water street to East street:		
Labor	$184 75	
Teaming	218 75	
Rolling	35 00	
Cracked stone and dust	632 50	
		1,071 00
Short street, from Bridge street to North street:		
Labor	$25 50	
Teaming	85 00	
Rolling	7 00	
Cracked stone and dust	80 00	
		197 50
Second street, from Cambridge street to Spring street:		
Labor	$267 75	
Teaming	201 25	
Cracked stone and dust	500 00	
		969 00
Main street, from Dana street to Central square:		
Labor	$413 50	
Teaming	237 50	
Rolling	56 00	
Cracked stone and dust	627 50	
		1,334 50
Harvard street, from Main street to Brewery street:		
Labor	$190 00	
Teaming	238 75	
Rolling	70 00	
Cracked stone and dust	885 00	
		1,383 75
Broadway, from Norfolk street to Prospect street:		
Labor	$29 50	
Teaming	22 50	
Rolling	3 50	
Cracked stone and dust	52 50	
		108 00
Amount carried forward		$13,152 20

Amount brought forward		$13,152 20
Bigelow street, from Main street to City Hall driveway:		
Labor	$17 00	
Teaming	22 50	
Rolling	10 50	
Cracked stone and dust	70 00	
		120 00
Hews street, from Western avenue to Grigg street:		
Labor	$45 75	
Teaming	185 25	
Rolling	7 00	
Cracked stone and dust	507 50	
		745 50
Magee street, from Putman avenue to Grigg street:		
Labor	$392 00	
Rolling	7 00	
Gravel	179 70	
		578 70
Grigg street, from Howard street to Hews street:		
Labor	$15 00	
Rolling	3 50	
Gravel	71 00	
		89 50
Essex street, from Main street to Harvard street:		
Labor	$12 00	
Teaming	30 00	
Rolling	8 75	
Cracked stone and dust	196 50	
		247 25
Total, District No. 1,		$14,933 15

District No. 2 (Wards 1 and 5).

Main street, junction of Harvard street:		
Labor	$36 00	
Teaming	50 50	
Rolling	11 35	
Cracked stone	70 00	
Gravel	2 50	
		$170 35
Prescott street, from Broadway to Cambridge street:		
Labor	$46 00	
Teaming	45 00	
Rolling	7 00	
Gravel	23 25	
		121 25
Amount carried forward		$291 60

Amount brought forward		$291 60
Irving street, from Scott street to end:		
Labor	$47 00	
Teaming	75 00	
Rolling	7 00	
Gravel	46 50	
		175 50
Fairfield street, from Spruce street to Pemberton street:		
Labor	$46 00	
Teaming	805 00	
Rolling	21 00	
Gravel	64 00	
		936 00
143 loads of filling were carted to this street from Hollis and Tannery streets.		
Pemberton street, entire length:		
Labor	$76 00	
Teaming	571 25	
Rolling	21 00	
Gravel	98 00	
		766 25
129 loads of filling were carted to this street from Tannery street.		
Hollis street, from North avenue to Spruce street:		
Labor	$45 00	
Teaming	161 25	
Rolling	7 00	
Cracked stone	2 50	
Gravel	29 50	
		245 25
Woodbridge street, from North avenue to Locke street:		
Labor	$75 00	
Teaming	256 25	
Rolling	14 00	
Gravel	51 00	
		396 25
Locke street, from Frank street to Meacham street:		
Labor	$28 00	
Teaming	173 75	
Gravel	31 25	
		233 00
Walden and Reservoir streets, from Concord avenue to Highland street:		
Labor	$342 00	
Teaming	1,084 00	
Rolling	42 00	
Gravel	259 00	
		1,728 00
Amount carried forward		$4,771 85

Amount brought forward		$4,771 85
Vassal lane, from Reservoir street to Huron street:		
Labor	$160 00	
Teaming	526 25	
Rolling	28 00	
Gravel	159 75	
		874 00
Huron street, from east side of bridge:		
Labor	$429 75	
Teaming and filling	346 25	
		776 00
Rice street, from North avenue to Cedar street:		
Labor	$55 50	
Teaming	288 75	
Rolling	14 00	
Gravel	59 00	
		417 25
Larch street, from Huron street to Brattle street:		
Labor	$383 75	
Teaming	566 25	
Rolling	17 50	
Gravel	166 50	
		1,134 00
Creighton street, entire length:		
Labor	$59 00	
Teaming	271 25	
Rolling	20 00	
Gravel	55 50	
		405 75
Tannery street, entire length:		
Labor	$465 00	
Teaming	628 75	
Rolling	40 00	
Cracked stone	670 00	
Gravel	15 00	
		1,818 75
Two hundred and forty-six loads of chip stone were carted to this street from the city ledge.		
Passageway from North avenue to Tannery street:		
Labor	$12 00	
Teaming	87 50	
Gravel	19 80	
		119 30
Raymond street, from Lambert avenue to Bellevue avenue:		
Labor	$16 00	
Teaming	115 00	
Rolling	7 00	
Gravel	27 60	
		165 60
Amount carried forward		$10,482 50

Amount brought forward		$10,482 50
Trowbridge street, from Main street to Broadway:		
Labor	$330 00	
Teaming	652 50	
Rolling	115 50	
Cracked stone and dust	1,307 50	
		2,405 50
Three hundred and forty-two loads of filling were carted from this to other streets.		
Mount Auburn street, from Boylston street to Putnam square:		
Labor	$72 00	
Teaming	80 00	
Rolling	45 50	
Gravel	20 40	
		217 90
White street, entire length:		
Labor	$44 00	
Teaming	105 50	
Rolling	7 00	
Gravel	24 90	
		181 40
Total for District No. 2		$13,287 30
Total macadamizing		$28,220 45

In addition to the amount expended for grading streets, $3,354.77 in the first district, and $5,420.85 in the second district, making a total of $8,775.62 has been expended in "patching" and "minute repairs" on nearly all the streets in the city, and while this work is not entirely satisfactory, we shall be obliged to continue this policy until the appropriations can be made large enough to allow more grading to be done, and to reduce the amount of patching now necessary. The wisest policy, it seems to me, would be for the city to purchase a good stone ledge, easy of access to the city, on the line of some railroad, locate a crusher plant there, and furnish material for macadamizing streets.

By this plan, which could be carried out by a reasonable expenditure, it would be possible to macadamize more streets every year, and prevent the necessity of so frequent grading and patching.

A careful perusal of the preceding pages, will show that the actual amount which we have been able to expend for labor and materials used directly on the streets is less than $40,000.00,

and with this small appropriation, we are expected to keep in proper condition, about eighty miles of streets, and the greater part of them low, with poor foundations, and with serious defects in their original construction.

Most of the wear and tear of our streets is due to heavy teaming through the city from the surrounding towns, this city being the main thoroughfare to Boston. The only way in which these thoroughfares can be kept in proper condition is to heavily macadamize or pave the principal streets.

This means of course a larger expenditure of money, and I respectfully recommend that a very much larger appropriation be made for this department the coming year.

During the past year we have continued the use of stone dust or "screenings" for covering sidewalks instead of the inferior gravel formerly used for that purpose. This material possesses the qualities of binding well and of absorbing water without making the walk muddy, and wherever used it has given general satisfaction.

In the reports for 1891 and 1892 I called the attention of the City Government to the necessity of making some provision for a supply of gravel both for paving and for ordinary grading work. In 1891 an advertisement was inserted in several newspapers published in the surrounding towns asking for proposals for a suitable gravel bank, to be located on the line of some railroad within twenty-five miles of the city. A number of answers were received, and in most cases the locality was visited, but no material of a satisfactory nature has yet been found.

We are now compelled to purchase gravel, whenever needed, from private parties at an increased cost to the department of at least 30 per cent. of what we could handle it for if we owned a suitable bank. I trust that this matter will be given prompt attention as I regard it as one of the most imperative needs of the department. I would also recommend the immediate establishment of a stone crusher plant, located somewhere in the second district, either in North Cambridge or Old Cambridge. This year we have experienced some delay in obtaining cracked stone and screenings when required and as there is but one party in this vicinity of whom this material can be purchased, the difficulty is likely to continue. There is an abundance of

"Field Stone" obtainable in the surrounding towns, and Cambridge teamsters are enabled to haul it through the winter months, when otherwise their teams would be obliged to remain idle. If a suitable plant is established with a capacity of from 100 to 125 tons a day, this stone can be hauled to the crusher, crushed and piled up convenient for use, as cheap, if not more cheaply than we shall be able to purchase it from any contractor.

This matter should receive immediate and careful consideration, as our contracts for materials must be made early in the year.

The following table shows the streets accepted during the past year: —

Streets Laid Out and Grades Established from December 1, 1892, tc December 1, 1893.

STREET.					PLAN.		
Name.	From	To	Length in feet.	Width in feet.	Accepted.	Made by	Date.
Adams street*	Concord ave	Grove st	2,200	40	April 27, 1893	City Engineer	Nov. 10, 1891
Avon Hill street	Hillside ave	Bellevue av	433	40	Nov. 11, "	E. F. Bowker	Oct. 12, 1892
Fayerweather street	Reservoir st	Vassal lane	1,621	50	Nov. 3, "	E. F. Bowker	June 1, 1893
Grove street*	Adams st	Cushing st	1,700	40	Apr. 27, "	City Engineer	July 7, 1892
Haskell street	North ave	Spruce st	504	40	Nov. 3, "	W.A.Mason & Son.	Aug. 5, 1893
Kidder street	North ave	Somerville line	289	30	June 14, "	E. F. Bowker	May 23, 1893
Mt. Pleasant street	S. of Lambert ave.	Southerly	25	40	May 17, "	Arthur Hodges	May 29, 1877
Myrtle avenue	Kirkland st	Magnolia ave	516	30	Nov. 3, "	E. F. Bowker	Aug. 28, 1893
Osborn street	Main st	State st	227	40	Oct. 6, "	E. F. Bowker	June 6, 1893
Pilgrim street	Brookline st	Sidney st	498	40	Nov. 11, "	City Engineer	Nov. 9, 1886
Richdale avenue	Lambert ave	Walden st	1,057	45	May 17, "	W.A. Mason & Son.	Nov. 1884
Second street*	Thorndike st	S. line Am.Net & Twine Co.	942	50	June 14, "	City Engineer	April 17, 1890
Thorndike street	Sixth st	Ninth st	531	40	May 4, "	E. F. Bowker	Sept. 6, 1892
White street	Cottage pl	Somerville line	304	25	July 13, "	W. A.Mason & Son.	June 30, 1884

*Grade established.

Total lenth of streets accepted during the year, 6005 feet=1.14 miles.
Total length of streets accepted December 1, 1893, 82.031 miles.

Huron Street Extension.

Appropriation		$13,535 32
EXPENDED.		
Land damages	$2,949 70	
Labor as per pay-roll	1,291 83	
Teaming	2,038 75	
Cracked stone and dust	2,311 73	
Ballast	81 25	
Tools	16 80	
Sewer pipe	1 35	
		8,691 41
Balance		$4,843 91

The original appropriation for the above work was $16,000.00 and included the payment of damages for land taken and the cost of widening and macadamizing Huron street, seventy feet wide, from Sparks street to the westerly line of the estate of the heirs of Charles C. Little.

About $4,000.00 of the original appropriation was expended last year, for widening and grading, but owing to delays in agreements as to grades, lines, etc., it was impossible to complete the work before winter set in. Accordingly it was begun early this spring and was completed about the middle of July.

The portion of this avenue from Concord avenue to the Watertown Branch Railroad was laid out by the city in 1893 and an agreement entered into by which the city was to grade and finish the street from Concord avenue to near Reservoir street, and the abuttors were to grade and finish the balance. The part called Fresh Pond avenue from the Watertown Branch Railroad to Woodlawn avenue at Cushing street has been constructed, the grading nearly completed and a bridge built over the cut at the pipe way.

The expense of this part of the work was paid from an appropriation of $13,000.00 from the Water Works, a balance of $2,829.30 being still unexpended.

The whole avenue has a uniform width of 70 feet and a total length of 6,320 feet. Of this length 2,573 feet have been macadamized in a very thorough manner by this department, 210 feet have been macadamized by us at the expense of the

owners, the balance 3,537 feet, has been sub-graded and a small portion of this has been finished in an indifferent manner by the owners.

Steps should be taken to finish this fine avenue as soon as the tracks for the street railway, for which locations are now granted, are laid.

The total expense to the city of this improvement to date is as follows : —

Cost of grading, land damages, etc., Concord avenue to land of F. A. Kennedy	$11,854 09
Cost of grading, land damages, etc., Watertown Branch Railroad to Cushing street	12,164 93
Cost of bridge over railroad	11,002 72
Cost of bridge over pipeway	8,239 74
Total	$43,261 48

To the above amount may be added the cost of land for the avenue opposite Cushing street and the cost of finishing the small area not yet macadamized and finished.

Widening North Avenue.

Appropriation		$2,021 80
EXPENDED.		
Land damages	$1,013 00	
Labor as per pay-roll	253 00	
Teaming	401 25	
Cracked stone	302 46	
Lumber	9 98	
		1,979 69
Balance		$42 11

The above appropriation was made from the balance carried from last year's appropriation for widening North avenue on the east side, from Alewife Brook to a point near Tannery street, so as to conform to the line of the west side of the street. The sidewalk has been moved back about twelve feet, the street macadamized and circles and return stones set at the corners of Tannery street.

Maintenance.

Appropriation		$10,900 00
EXPENDED.		
Salaries	$3,624 50	
Office expenses	461 02	
Incidental expenses	1,102 90	
Winter work, care of snow and ice	5,694 41	
		10,882 83
Balance		$17 17

This appropriation was originally intended to cover all the running expenses of the department and in the budget was fixed at $40,000.00; some difficulty occurring in determining just what should be considered "current or running" expenses, it was decided to transfer a large part of it to the appropriation for "construction and repairs" and to include in this account only the items of office expenses, salaries, incidentals and care of snow and ice, a detailed account of which is given above.

Paving Cambridge Street.

Appropriation		$8,750 00
EXPENDED.		
Labor as per pay rolls	$6,418 26	
Bricks	193 32	
Flagging	857 02	
Gravel	489 10	
Teaming	791 25	
		8,748 95
Balance		$1 05

This amount was expended, as shown above, in re-paving Cambridge street from Lechmere square to the Boston & Albany R. R. crossing.

The edgestone was re-set and the brick sidewalks re-laid on both sides of the street; double crossings of North River flagging stone were laid at nearly all the intersecting streets.

This street is now paved with granite blocks from Lechmere square to Prospect street, making the longest continuous piece of paved street in the city.

Paving Gore Street.

Appropriation		$10,000 00
EXPENDED.		
Labor as per pay rolls	$3,092 94	
Gravel	354 05	
Paving blocks	5,898 75	
Teaming	653 75	
		9,999 49
Balance		51

The above amount was expended as shown, in paving Gore street from the Somerville line to Fifth street. As the line between the two cities runs diagonally across the street a little east of the Boston & Albany Railroad crossing, the authorities of the City of Somerville were requested to pave the small triangular space between our city line and the crossing, but as they had no appropriation available for that purpose, this space remains unpaved.

This street is one of the most heavily travelled streets in the city; besides the large packing establishments which send daily a great number of heavy teams to Boston through it, it is a direct thoroughfare from the cities of Somerville and Medford. I therefore recommend that the paving on this street be continued next year to Bridge street, which will then make a continuous paved thoroughfare from the Somerville line through this city to Boston.

Paving Western Avenue.

Appropriation		$11,000 00
EXPENDED.		
Labor as per pay rolls	$3,564 38	
Sand	123 00	
Paving blocks	6,822 70	
Teaming	446 25	
		10,956 33
Balance		$43 67

This street is another of the important thoroughfares of the city and is also very heavily travelled. Under the above appro-

priation, granite block paving has been laid from Central square to Kinnaird street.

About 40,000 paving blocks have been piled up on the "Mill Pond" lot on this street, in anticipation of the continuance of the paving next year, and I trust that an appropriation will be made sufficient to complete the paving to the bridge.

I desire to call attention to one other thoroughfare, Prison Point street; this street is I suppose, the most heavily travelled in the entire city; its condition is such now, that it is imperative that it be re-paved immediately and I shall request that the Finance Committee in making up the annual budget shall provide for this work.

Paving Edgestones and Sidewalks.

Appropriation		$28,700 00
EXPENDED.		
Labor as per pay rolls	$15,809 61	
Bricks	3,060 98	
Cement	10 00	
Cord and line	22 76	
Cordage	15 06	
Cutting paving blocks	57 23	
Gravel	645 50	
Hardware, tools, etc.	139 13	
Lumber and cement	36 92	
Oat meal	19 60	
Oil	48 98	
Sand screen	7 50	
Stone	6,888 83	
Teaming	1,935 00	
	——	28,697 01
Balance		$2 99

This appropriation has been expended for re-setting old edgestones, re-laying old brick sidewalks, setting new edgestones, laying new brick sidewalks and new North River flagging crossings.

A great deal of attention has been given this year to the laying of new crossings throughout the city. At the beginning of the year, there were twenty-one petitions for crossings in the files of the Committee left over from the previous year; all of

these have been disposed of, as well as those received during this year and there remain now but three petitions for crossings in the files.

The following list shows the streets where crossings have been laid this year:—

Concord avenue, from Madison avenue to Sparks street.
Bridge street, at Short street.
Cambridge street, at Third street.
Quincy square.
Pleasant street, at Auburn street.
Brookline street, at Putnam avenue.
Putnam avenue, at Brookline street.
Cedar street, junction of Rice street.
Rice street, junction of Cedar street.
Oxford street, at Kirkland street.
Brattle street, at Willard street.
Brattle street, at Riedesel avenue.
Sparks street, at Highland avenue.
Highland avenue, at Sparks street.
North avenue, at Waterhouse street.
North avenue, at Chauncy street.
Cambridge street, at Third street.
Bridge street, at Short street.
North avenue, at Russell street.
Fourth street, at Vine street.
Lambert avenue, at Washington avenue.
Lambert avenue, at Walnut avenue.
North avenue, at Garden street.
Putnam avenue, at Mount Auburn street.
Putnam square.
Main street, at Trowbridge street.
Hadley street, at North avenue.
North avenue, at Tannery street.
Quincy street, at Broadway.
Broadway, east side of Quincy street.
Spruce street, west side of Pemberton street.
Cambridge street, at Quincy street.
Third street, at engine house.
Quincy street, at Cambridge street.
Cambridge street, junction of Quincy street.
Kirkland street, near Quincy street.
Broadway, west side of Quincy street.
Quincy street, on line with Kirkland street.
Pemberton street, south side of Spruce street.
Irving street, south side of Cambridge street.

Cambridge street, west side of Sumner street.
Sparks street, at Mercer circle.
Magazine street, at Franklin street.
Pearl street, at Franklin street.
Windsor street, at School street.
Harvard street, at Bigelow street.
Cambridge street, at Highland avenue.
Hastings square.
Prescott street, south side of Cambridge street.
Ware street, south side of Broadway.
Jefferson street, at Warren street.
Allston street, corner of Brookline street.
Brookline street, at Allston street.
Porter street, at Warren street.
Trowbridge street, between High School and Public Library.
Prescott street, north side of Broadway.
Irving street, corner of Cambridge street, (Public Library).
Garden street, west side of Wallace street.
Shepard street, corner of Garden street.
Orchard street, easterly line of Allen street.
Lincoln street, at Windsor street.
Cambridge street, at Dana street.
Cambridge street, at Highland avenue.
Windsor street, junction of Webster avenue.
Mount Auburn street, at DeWolfe street.
Mount Auburn street, at Plympton street.
Harvard square.
Harvard street, across Holyoke street.
Garden street, at Mason street.
Bellevue avenue, at Raymond street.
Raymond street, at Bellevue avenue.
Walden street, at Dublin street.
Dublin street, at Walden street.
Garden street, junction of North avenue and Craigie street.
Austin street, near Main street.

At the commencement of this season we had on hand a good supply of paving materials, which has enabled us to do a large amount of new work, as will be seen by reference to the following schedule of new edgestones and brick sidewalks :—

District No. 1.

STREETS.	Linear feet Straight Edge Stone.	Linear Feet Circle Edge Stone.	Square yards Brick Sidewalk.	Amount.
Main Street, No. 682 and 684			96	$104 48
Harvard Street, No. 34 and 36			49.4	60 27
Gore Street, between 4th and 5th Streets	400		222	298 95
Third Street, at Bridge Street	25			32 18
Antrim Street, Cambridge Street to Broadway	27			35 12
Cambridge Street, Nos. 92 and 94	115.5			221 26
Dana Street, No. 11	93.5		69.5	196 45
Otis Street, 8th to 9th Streets	153		126.5	286 67
Lincoln Street, No. 19	80			130 50
Cherry Street, between School and Washington Streets	34			39 43
Henry Street, between Sidney and Brookline Streets			75	79 16
Columbia Street, Lincoln to Cambridge Street	201.5			461 97
Chatham Street, corner Hancock	116	9.8	84.5	227 69
Hancock Street, Harvard to Broadway	116		84.5	230 46
Pearl Street, Tufts to Granite Street	308			412 43
Albany Street, Front to Main Street	22.9			15 57
Washington Street, Main to Brewery Street	157	4	55	149 12
Fourth Street, at Police Station	11.8			58 05
Short Street	79			61 81
Thorndike Street, at Second Street			122.5	98 79
Second Street, Thorndike to Bent Street	835		688.5	1,508 77
Third Street, Vine to Charles Street			196	196 48
Third Street, Vine to Potter Street	630	51.3		910 00
Fourth Street, Vine to Charles Street	131		157	280 96
Webster Avenue, Bristol to Clark Street	100			118 31
Bristol Street, Hampshire Street to Webster Avenue	242	14.7		160 72
Charles Street, No. 65			26.4	31 31
Gore Street, Somerville line to 6th Street			389	409 25

District No. 1—Continued.

STREETS.	Linear Feet Straight Edge Stone.	Linear Feet Circle Edge Stone.	Square yards Brick Sidewalk.	Amount.
Cottage Street, Magazine to Pleasant Street	.....	.....	63.4	$104 85
Jay Street, Western Avenue to River Street	.....	.....	131.5	137 94
Spring Street, 6th to 9th Street	461	13.4	.....	418 05
School Street, at Standpipe	21	.....	.....	36 18
Pearl Street, Hamilton to Putnam Avenue	27.6	.....	18	37 08
Green Street, Western Avenue to Pleasant Street	30	.....	.....	87 04
Inman Street, Austin to Harvard Street	.....	.....	4.15	38 42
Broadway, at Harvard School	.....	.....	20	10 10
Gore Street, at Police Station	.....	.....	12	13 10
Bridge Street at Clary's Wharf	.....	.....	10	26 00
Columbia Street, Cambridge to Hampshire Street	197	.....	.....	98 50
Harvard Street, Moore to Clark Street	98.5	.....	35.5	109 86
Franklin Street, Magazine to Pearl Street	304.5	.....	216	637 86
Main Street, at Morse Building	16	.....	.....	14 24
Ellsworth Avenue, No. 9	61	.....	54 5	129 72
	5,094.8	93.2	3,044.5	$8,816 10

District No. 2.

STREETS.	Linear Feet Straight Edge Stone.	Linear Feet Circle Edge Stone.	Square yards Brick Sidewalk.	Amount.
Quincy Square	.....	.....	206	$739 40
Cedar Street, junction of Rice Street	8	.....	.....	9 94
Rice Street, junction of Cedar Street	9.5	.....	.....	9 93
Sparks Street, at Highland Street	11.9	10	.....	33 47
Highland Street, at Sparks Street	24	9.5	.....	45 18
North Avenue, at Russell Street	.....	.....	14	15 80
North Avenue, at Tannery Street	8.1	.....	.....	23 11
Third Street, at Engine House	.....	.....	12.5	58 37
Broadway, west side of Quincy Street	.....	.....	33.5	67 76
Quincy Street, at Kirkland Street	15	16.3	.....	48 78
Allston Street, corner Brookline Street	25.6	19	.....	58 95
Cambridge Street, at Dana Street	18	11.8	.....	47 70
Mt. Auburn Street, DeWolf and Plympton Streets	.....	.....	356.5	271 02
Garden Street, at Mason Street	.....	.....	51	78 47
North Avenue, Blake to Russell Street	34	.....	959.5	736 02
North Street, corner Broadway and Irving Streets	15	16.3	.....	28 14
Cambridge Street, west corner Quincy Street	7	12.9	.....	22 54
Cambridge Street, north corner of Quincy Street	15.9	13.3	.....	24 79
Both corners, Broadway and Ware Street	20.4	25.5	.....	40 27
Lambert Avenue, Mt. Pleasant Street to North Avenue	1,320	46.6	1,235.5	1,860 22
Lancaster Street, Agassiz Street to Washington Street	.....	.....	188.5	189 38
Bath Street, Spruce Street to Pemberton Street	48.4	26	.....	102 95
Pemberton Street at North Avenue	26	.....	.....	31 80
Pemberton Street, front of No. 50	60	.....	.....	60 37
Both corners, Quincy and Kirkland Streets	40.9	25.6	.....	74 10
Cogswell Avenue	.....	.....	11.5	14 30
Harvard Square, Chauncy Street and North Avenue	.....	.....	137	14 08
Cambridge Street and Prescott Street	12.4	18	.....	41 76

District No. 2.--Continued.

STREETS.	Linear Feet Straight Edge Stone.	Linear Feet Circle Edge Stone.	Square yards Brick Sidewalks.	Amount.
Cambridge Street, cor. Irving Street	25	25.4	.....	$81 95
Cambridge Street, north-west corner Sumner street	21.6	12.3	.....	42 34
Mercer Circle and Sparks Street	38.7	.....	19.3	73 57
Broadway, Ware Street to Ellery Street	552.6	.....	716	1,210 45
Trowbridge Street, Broadway to Harvard Street	.....	.....	21	8 70
Trowbridge Street, No. 39 to Harvard Street	.....	.....	164	194 05
Washington Avenue, at No. 114	.....	.....	90	91 50
Blake Street, North Avenue to Oxford Street	.....	.....	253.5	222 69
Washington Avenue, Lake View Street to Lexington Street	311.9	25.3	.....	316 42
Cambridge Street, Prescott Street to Irving Street	203.2	.....	.....	228 85
Lowell Street, Brattle Street to Ellis estate	288	.....	302.5	543 66
Bellevue Avenue, near Raymond Street	45	38		134 37
Dublin Street, south-west corner Spruce Street	12.9	9.6		30 77
Remington Street, from Main Street 100 feet	79.6	.....	72.5	218 06
Walden Street, North Avenue to Mead Street	198	.....		340 52
North Avenue, Walden Street to Creighton Street	82	.....		152 42
Trowbridge Street, Main Street to Harvard Street	.....	.....	32.5	66 13
Cambridge Street, corner Ellery Street	11	19		51 93
Winthrop Street, Boylston Street to Dunster Street	7	.....		11 51
Harvard Street, Bow Street to Holyoke Street	14.5	.....		57 05
North Avenue, corner Tannery Street	25	38		71 50
Brattle Street, Brattle Square to Story Street,	.....	.....	161	2,116 60
1171 square yards of granite paving were laid.	.....	.....		
Cedar Street, junction Rice Street	41.4	10		113 67
Brewster Street, at Endicott Estate	360.4	9.9		283 74
Belmont Street, at Watertown Line	122	22.4		165 03
Cushing Street, corner Locust Street	21.6	.....		30 67
Putnam Avenue, at Standpipe	20	.....		49 89

Boylston Street, at Standpipe	19	.....		$47 28
Woodbridge Street, at J. P. Quilty's	51	.....	30	83 64
Mellen Street, at C. A. Russell's	.....	.....	34	17 20
Sacramento Street, North Avenue to Oxford Street	12.5	.....		13 77
Frost Street, Oxford Street to Forrest Street	6	.....		72 80
Woodbridge Street. at North Avenue	19	.....		96 20
Meacham Street, at North Avenue	.....	25.2		72 54
Pemberton Street, junction Fairfield Street	13.6	31.9		28 05
	4,324.6	517.8	5,101.8	$12,088 12

The natural increase in the demand for edgestones, brick sidewalks and crossings, demands that the appropriation for this department should be larger. We now have in the files of the Committee, eight petitions for brick sidewalks, two for new edgestones and five for driveways.

More work could be done in this branch of the street department, and a great deal of money saved, if as stated in the beginning of this report, some provision could be immediately made for an adequate supply of gravel.

The following table shows the comparative amount of paving done for the past four years:—

DESCRIPTION OF WORK.	1890.		1891.		1892.		1893.	
	Yards.	Feet.	Yads.	Feet.	Yards.	Feet.	Yards.	Feet.
New straight edgestones set	.....	12,751	.....	8,675	.....	25,055	.....	9,826
New circle edgestones set	.....	460	.....	281	.....	636	.....	701
Old straight edgestones re-set	.....	8,770	.....	14,684	.....	18,987	.....	11,643
Old circle edgestones re-set	.....	23	.....	203	.....	97	.....	135
New brick sidewalk paved	4,081	.....	4,173	.....	15,097	.....	5,996	.....
Old brick sidewalk re-paved	5,412	.....	16,630	.....	17,511	.....	9,909	.....
Old crossings re-paved	4,496	.....	3,780	.....	2,413	.....	.....	.....
New North River flagstone laid	.....	1 246	.....	1,858	.....	4,467	.....	5,379
Granite block paving	2,008	.....	2,714	.....	11,829	.....	24,009	.....
Gutter paved	8,988	.....	12,838	.....	19,145	.....	7,119	.....

Shade Trees and Public Grounds.

Appropriation		$7,000 00
EXPENDED.		
Labor as per pay-roll	$6,285 36	
Hardware, tools, etc.,	36 12	
Hose	39 00	
Hay and grain	45 75	
Lumber	9 00	
Loam	8 00	
Rigging	30 00	
Rope	7 30	
Wagon	175 00	
Seeds and plants	202 40	
Signs	18 75	
Sods	10 54	
Trees	85 50	
		6,952 72
Balance		$47 28

This department is under the charge of a special foreman, and has the care of all the commons and squares, the grounds around the Public Library, the City Hall, and the new High School, and all the trees in the streets of the city.

All the flagstaffs have been repaired and painted, and the plank walks have been renewed and rebuilt.

The work in this department is constantly increasing, and liberal appropriations should be made to allow for the care of the trees and the public grounds throughout the city.

The walks around and across the several commons are kept free from snow and ice by this department; considerable additional work has been added and the appropriation should be increased this year.

Street Watering.

Appropriation		$22,031 65
EXPENDED.		
Labor as per pay-roll	$2,317 26	
Advertising contracts, etc.,	14 31	
Brushes	18 62	
Castings	8 28	
Collecting assessments	40 00	
Fuel	8 00	
Hardware, tools, etc.,	15 56	
Hose	37 67	
Lettering	5 00	
Lumber	166 11	
Oakum	4 50	
Paint, oils, etc.,	25 19	
Packing	1 20	
Rebate on assessment	7 75	
Repairing sprinkler	8 40	
Rubber boots	3 72	
Sprinkling attachment	21 20	
Stationery and printing	9 25	
Sprinkling streets, as per pay-roll	17,842 50	
Use of horse	107 00	
Wagon repairs	27 80	
Watering carts	1,300 00	
		21,989 32
Balance		$42 33

This amount has been expended in repairs of carts, incidental expenses and the payment of contractors for sprinkling the streets.

The streets have been watered every day this year when necessary, including Sunday mornings, from April 1, to December 1.

The present system of watering the streets wholly by contract is not entirely satisfactory, and better service could be given if the principal streets were watered by the city teams, leaving only a part of the work to be done by contract. This work is in charge of a foreman, who has given his entire time to it, and under his supervision the service has been very much improved.

Four new carts, with the "Studebaker" patent sprinkling attachment, of eight hundred and fifty gallons capacity have been purchased this year of the Abbott Downing Company.

The subject of street watering has received especial attention this year, and a special committee of the City Government was appointed to consider what steps were necessary to be taken to improve the system.

This committee has made a thorough investigation of the matter and has recommended that the system of collecting contributions from residents on streets to be watered, be discontinued, and that the streets of the city be watered and the entire expense taken from the tax levy.

There is no doubt that this is the best system that can be devised, and an estimate of the cost will be submitted in the annual budget of appropriations.

In General.

The office work of the department has been systematized, and accurate and detailed accounts are kept of all work done on the streets.

Information can be obtained at the office of the cost of construction, paving, or the repairs on any given street, and the number of openings made in it during the year.

The City Government this year adopted an ordinance relating to the granting of permits to open, obstruct or encumber the streets, similiar to that in operation in the City of Boston. All parties requiring such permits are compelled to file a bond, with competent sureties, to protect the city from any damage which might arise from accidents occurring by reason of the granting and use of such permits. All the clerical work incident to this

change in the ordinances is done in this office, and parties who wish permits can obtain them quickly and avoid the delay of petitioning the Board of Aldermen, as was the custom years ago.

All the supplies of the department are purchased upon requisitions from the office, and duplicate invoices are kept for reference. A record of each horse is kept from the time of purchase until his final disposal. All accidents coming under the observation of the employees of the department are reported to the office, where as full particulars as possible, including names of witnesses, etc., are kept on file.

The schedules of sidewalk assessments are reported from this office to the Board of Aldermen and are levied on the abuttors as soon as the work is completed. The daily reports of defects in streets and sidewalks from the police are promptly attended to by the foreman, and a return is made by them on blank forms of the time they receive the reports and complete the work.

The city is divided into two districts, all the territory east of Dana street, comprising District No. 1, being in charge of Foreman John A. Sheridan, and all west of Dana street in charge of Foreman Charles A. Brown, being designated as District No. 2.

Our experience of this district system, which has now been in effect about three years, has shown a great improvement over the old system; each foreman being held responsible for the condition of the streets in his district, and repairs are promptly and thoroughly made under his personal supervision.

Schedule of Property in Charge of this Department.

REAL ESTATE.

City stables, Hampshire street:		
72,661 sq. feet of land, Assessors' valuation	$30,000 00	
Stables, sheds and scales	16,000 00	
Old Police Station	1,000 00	
		$47,000 00
Yard and pound, east side of Norfolk street, 39,600 sq. feet of land, Assessors' valuation		12,000 00
City wharf, Main, near Sixth street:		
9,400 sq. feet of land, Assessors' valuation	7,300 00	
162,000 sq. feet of flats, Assessors' valuation	7,600 00	
		14,900 00
Mill Pond property:		
305,690 sq. feet of land, Assessors' valuation		46,000 00
Total real estate		$119,900 00

Amount brought forward		$119,900 00
PERSONAL ESTATE.		
42 horses	$10,650 00	
45 watering carts	14,675 00	
1 engine and stone crusher	7,000 00	
2 steam road rollers	8,000 00	
4 horse rollers	1,000 00	
4 Champion road machines	1,000 00	
1 Barnard Castle sweeper	375 00	
35 carts, twenty-one single, fourteen double	4,700 00	
47 sets of harnesses	1,100 00	
4 wagons and five buggies	650 00	
24 sleds, eighteen snow plows and 1 sleigh	2,775 00	
2 hay racks.	225 00	
1 caravan	150 00	
1 lawn hand cart	80 00	
8 lawn mowers	200 00	
3 pungs	75 00	
5 street sweepers	1,490 00	
Garden hose	125 00	
Tools and stable furniture	1,750 00	
1,998 feet straight edgestones	919 08	
337 feet circle edgestones	252 75	
26 feet North River flagging	19 50	
3,000 tons of gutter stone	4,500 00	
90 yards of paving gravel	90 00	
40,000 granite paving blocks	1,560 00	
30,000 granite paving blocks, (seconds)	600 00	
45,000 bricks	585 00	
25 yards of stone dust	35 50	
25 yards of cracked stone	71 00	
		64,652 83
Total property in charge of the department . .		$184,552 83

In conclusion, I desire to express my thanks to His Honor the Mayor, and to the members of the Joint and Standing Committees on Roads and Bridges, for their generous co-operation and assistance during the past year, and to the members of the city Council for their encouragement and approval. My acknowledgments are extended to the heads of the different departments for their courtesy and consideration pertaining to matters in the department; also to George M. Clukas and John R. Wilson, clerks, and to foremen John A. Sheridan and Charles A. Brown, for their prompt, efficient and cheerful compliance with department orders.

Respectfully submitted,

E. H. REED,

Superintendent of Streets.

REPORT

OF THE

COMMISSIONER ON HARVARD, WEST BOSTON, CRAIGIE'S AND PRISON POINT BRIDGES.

To the Honorable the City Council of the City of Cambridge:

THE Commissioner for Harvard, West Boston, Craigie's and Prison Point Bridges submits for himself and associate the twenty-third annual report of the matters pertaining to West Boston and Craigie's Bridges, and the seventeenth annual report on Prison Point Bridge, and the second annual report on Harvard Bridge.

Harvard Bridge.

The fences, the plank outside the fences, and the watch-houses at the end of the bridge have been painted.

The switch of the electrical motor used for moving the draw has been placed in a more convenient position, and the apparatus for moving the draw re-arranged. The switch is now in a better position for use and can be more easily kept in condition, and repairs can be more readily made than before. This work was done by the draw-tenders.

The position of the draw has been marked for navigation at night by showing red and green electric lights. The red light is shown on the up-stream side of the draw at the Boston end, and the green light on the down-stream side of the draw at the Cambridge end.

The house on the draw pier should be painted and the entire surface plank of the bridge renewed.

The roadway is cleaned once a week and the surface plank patched when necessary. The draw-tenders keep the roadway in order, the sidewalks free from snow, clean the electric light globes (72 in number) and help to clean the roadway.

West Boston Bridge.

All the iron work under the draw has been painted, an addition made to the engine-house for a workshop, coal, ash and store-house. The engine-house has been painted inside. The usual repairs, such as paving, carpentering, etc., have been attended to.

Cleaning on this bridge is done once a week, always after midnight, so as not to interfere with travel. The addition to engine-house, painting outside and inside, also repairs on draw and cleaning sidewalks, have been done by the draw-tenders.

The sides of the waterway on the draw-pier will have to be replanked.

The trusses for carrying the trolley wires which were placed on the draw in 1892 weighed about one ton each and were very unsightly. The West End Railroad Company's attention was called to them, and this year they have replaced them by others weighing about six hundred pounds each, thereby relieving the draw of a large and unnecessary weight.

The filled part at the Cambridge end of the bridge has been watered at a small expense, the abutters paying part of the cost.

Canal or Craigie's Bridge.

The up-stream fender on the Cambridge side has been rebuilt in a substantial manner, the sides of the water-way through the draw have been replanked, and the Samson posts of the draw have been securely fastened in place. A new boiler has been provided for the engine used for turning the draw. The ordinary repairs have been made.

The West End Railway Company has improved its apparatus for crossing the draw, and the cars now run smoothly and without delays. The draw-tenders have kept the sidewalks clean, have painted the engine house on the inside and made ordinary repairs on the bridge and engine. The roadway is cleaned once a week after midnight.

The draw is old and weak, and requires careful attention to keep it in safe condition. The replanking of the waterway should be completed and the fences painted at once.

Prison Point Bridge.

The ell of the draw-tender's house has been repaired, the roof tinned and painted and the house renovated inside, most of the work being done by the draw-tender.

Ordinary repairs, such as planking draw, etc., have been made. This draw is old and hard to raise. It should be replaced by a new draw before many years.

In General.

The usual statement is appended of the number of draw-openings and the number of vessels which passed through.

The amount received for dockage, rents, repairs to West End Street Railway tracks, etc., during the year has been $1,505.36; one-half ($752.68) has been paid to the City of Boston.

Respectfully submitted,

WILLIAM J. MARVIN,

Bridge Commissioner for Cambridge, and Harbor Master on Charles and Miller's Rivers and Broad Canal.

DECEMBER 22, 1893.

Harvard Bridge.

SCHEDULE OF PROPERTY.

Two saws, 2 hatchets, 2 hammers, 1 car adze, 6 lanterns, 6 water pails, 1 inkstand, 1 desk, 5 chairs, 2 beds, 1 flag, 1 lounge, 1 stove, 1 clock, 1 bucksaw, 1 mall, 1 boat, 2 pairs of oars, 1 water cooler, 2 lamps, 3 iron bars, 1 monkey wrench, 1 s wrench, 1 grindstone, 1 s square, 1 b square, 10 fathoms rope, 2 planes, 1 bit stock, 1 set of bits, 1 wheel-barrow, 4 pulleys, 2 hooks, 1 mallet, 1 pair rubber gloves, 1 saw set, 1 vise, 2 shovels, 1 ice cutter, 1 pair of pliers, 1 jack-screw, 17 lb. sledge, 4 reflector lanterns, 10 feet $\frac{3}{4}$ chain, 1 armature.

West Boston Bridge.

SCHEDULE OF PROPERTY.

One three-wheeled wheelbarrow, 2 wheelbarrows, 1 sand sprinkler, 1 iron bedstead and spring, 4 sheets, 2 pillow-cases,

1 pair of blankets, 1 bed spread, 1 comforter, 6 chairs, 1 table, 2 stoves, 4 towels, 1 towel roller, 1 brush and comb, 1 blacking brush, 1 10-gallon oil can, 2 5-gallon oil cans, 4 small oilers, 2 large pokers, 1 hanging lamp, 1 small ladder, 4 lanterns, 2 bushel baskets, 4 paint brushes, 1 ice water tank, 1 large flag, 1 grindstone, 1 slate, 1 record book, 4 pails, 1 tube cleaner, 150 ft. 4-inch rope, 150 ft. $1\frac{3}{4}$-inch rope, 2 double blocks, 2 snatch blocks, 175 ft. $\frac{3}{4}$ cotton hose, 12 casks 40 spikes, 2 casks 10-inch w. spikes, 1 cask 10-inch cut spikes, 1 cask 8-inch cut spikes, 1 hose nozzle, 2 saws, 1 ice saw, 1 vise, 1 bit stock, 4 bits, 1 file, 4 chisels, 1 plane, 1 square, 2 screw drivers, 1 nail set, 1 brad awl, 1 quire sand paper, 3 gallons mixed paint, 10 gallons linseed oil, 2 hammers, 1 top mall, 1 adze, 1 auger, 1 broad axe, 1 hatchet, 3 crowbars, 4 hoes, 8 shovels, 3 snow shovels, 1 scoop shovel, 4 snow scrapers, 4 picks, 4 push brooms, 1 sieve, 1 ice chisel, 2 dirt tampers, 2 cold chisels, 3 monkey wrenches, 1 stillson wrench, 1 mallet, 1 pincher, 5 curtains, 3 large wrenches, 4 iron wedges.

Canal Bridge.

SCHEDULE OF PROPERTY.

Two street sieves, 3 scrapers, 1 coal scoop, 2 pokers, 6 corn brooms, 2 cold chisels, 1 crowbar, 1 hammer, 1 sledge hammer, 1 snow plow, 6 wrenches, 3 oil cans, 2 ice chisels, 16 old street lanterns, 2 earth picks, 30 fathom $3\frac{3}{4}$-inch rope, 1 leading block, 1 hand lamp, 2 bedsteads, 2 mattresses, 2 bed covers, 2 pillows, 2 blankets, 1 flag, 5 snow shovels, 1 stove, 1 iron salt pail, 1 sand sprinkler, 1 clock.

Prison Point Bridge.

SCHEDULE OF PROPERTY.

One pick, 1 iron shovel, 1 adze, 3 snow shovels, 2 5-gallon cans, 1 oil feeder, 2 kegs spikes, 2 corn brooms, 100 ft. woven hose, 1 ice cutter, 2 ladders, 2 hand lanterns, 2 Yale locks, 1 bit stock, 4 bits, 1 hammer, 1 hand saw, 1 axe.

Statement showing Traffic over Bridges.

Date, 1893.	Bridge.	Foot Passengers.	Teams.	Cars.	Car Passengers.
Sept 8,	Canal.....	6,704	5,517	496	11,928
6 A. M. to	Harvard....	2,515	2,690	270	10,612
7 P. M.	West Boston	5,428	3,015	923	20,743
	Total.....	14,647	11,222	1,689	43,283

Number of times the draws in Canal, Harvard, Prison Point and West Boston Bridges have been opened, and the number of vessels which have passed through for the year ending Nov. 30, 1893:—

DATE.	Canal or Craigie.		Harvard.		Prison Point.		West Boston.	
December 1, 1892 to November 30, 1893.	Number of Draw Openings.	Number of Vessels Passed through.	Number of Draw Openings.	Number of Vessels Passed Through.	Number of Draw Openings.	Number of Vessels Passed Through.	Number of Draw Openings.	Number of Vessels Passed Through.
December, 1892.....	244	285	117	179	39	59	122	210
January, 1893.....	95	123	8	8	16	24	30	36
February, "	9	10	0	0	23	48	0	0
March, "	75	95	20	33	30	42	26	40
April, "	257	293	169	202	47	62	105	159
May, "	437	497	248	316	49	91	217	308
June, "	470	510	297	361	49	66	249	356
July, "	449	497	210	271	48	67	270	376
August, "	351	385	222	276	0	0	173	243
September, "	316	336	198	270	10	12	179	277
October, "	307	333	158	268	73	113	193	313
November, "	299	338	131	203	54	75	154	277
Total.....	3,309	3,702	1,778	2,387	438	659	1,718	2,595

Amount of freight passing through draw of Canal Bridge from December 1, 1892, to November 30, 1893:—

Tons of coal	223,465
Tons of granite	45,296
Tons of sand	15,345
Feet of lumber	16,314,000
Barrels of lime	12,907
Cords of wood	2,307
Bricks	1,478,000
Number of piles	9,494
Gallons of oil	1,095,000
Tons of iron	835

Amount of freight passing through draw of West Boston Bridge from December 1, 1892, to November 30, 1893:—

Tons of coal	116,955
Tons of stone	14,915
Tons of roofing sand	2,440
Tons of iron	835
Tons of sand	454
Tons of paving stone	124
Barrels of lime	5,813
Barrels of cement	1,025
Feet of lumber	3,078,000
Feet of piles	22,000
Cords of wood	1,570
Gallons of oil	1,095,000
Bricks	280,000
Laths	2,496,000
Shingles	1,076,000

Amount of freight passing through draw of Harvard Bridge from December 1, 1892, to November 30, 1893:—

Barrels of lime	4,750
Cords of wood	1,190
Feet of lumber	3,162,000
Bricks	345,000
Gallons of oil	1,039,000
Shingles	1,076,000
Laths	1,490,000
Tons of iron	765
Tons of stone	1,863
Tons of coal	110,229

Freight passing through Prison Point Bridge from December 1, 1892, to November 30, 1893 :—

Tons of coal	76,641
Tons of stone	100
M. of paving stone	567,900
Cords of wood	559
Tons of sand	209
Feet of piling	3,500
Feet of lumber	97,500

REPORT

OF THE

CAMBRIDGE WATER BOARD.

To the Honorable City Council of Cambridge:—

GENTLEMEN:—The Water Board herewith submits to you its twenty-ninth annual report, being for the year ending November 30, 1893:—

Total Cost of the Water Works.

Cost of the works to November 30th, 1892, as per the report of last year	$3,195,214 38
Expended during the past year	175,460 58
Making the total cost to November 30, 1893	$3,370,674 96

Water Bond Account.

Whole amount of Water Bonds issued	$3,134,900 00
Amount paid from Sinking Fund	1,273,400 00
Leaving unpaid Water Bonds outstanding	$1,861,500 00
From this deduct the present value of the Water Debt Sinking Fund, per Trustees account	686,867 26
Leaving Bonds to be paid from the Sinking Funds in the future	$1,174,632 74

General Construction Account.

RECEIVED.

From Bonds issued during the year	$65,000 00
From premium received on the same	1,965 00
From sale of houses, etc., at Fresh Pond	3,089 19
Transferred from Fresh Pond Land account	6,640 77
Transferred from water receipts, fines, etc.	60,000 00
	$136,694 96

EXPENDED.

Construction account, general .	$49,885 02	
Construction account, grading F.P.	62,487 30	
Construction account, Huron St. Bridge	7,485 44	
Construction account, Holworthy St. Bridge	6,542 00	
Construction account, making Huron Street	10,295 20	
		$136,694 96

Stony Brook Construction Account.

RECEIVED.

Balance of appropriation from 1892	$3,854 70

EXPENDED.

For building ice fender, outer screen, and expert testimony, etc.	$1,993 27
Balance of appropriation to new account . . .	1,861 43
	$3,854 70

Payson Park Reservoir Account.

RECEIVED.

From bonds issued on account of same . . .	$40,000 00
From premium on sale of bonds	1,480 00
	$41,480 00

EXPENDED.

In settlement for land taken . .	$35,733 98	
Balance of appropriation to new account	5,746 02	
		$41,480 00

Fresh Pond Land Purchase Account.

RECEIVED.

Balance of appropriation of 1892	$34,604 74
From bonds issued for this account	45,000 00
From premium on sale of bonds	1,255 00
	$80,859 74

EXPENDED.

For purchases and settlement for estates bordering on Fresh Pond	$61,038 37	
Amount transferred to construction account general	6,640 77	
Balance unexpended to new account	13,180 60	
		$80,859 74

Water Rates, Fines and Supply Account.

RECEIVED.

From water rates	$243,907 12	
Less rates refunded	1,687 34	
	Net	$242,219 78
Shutting off, letting on, sealing and rent . . .		$1,308 38
From supply account		6,169 64
Accrued interest on bonds sold		644 45
From sale of hay, fruit, etc.		218 80
Total		$250,561 05

EXPENDED.

For maintenance account	$47,156 07
For supply account	5,122 86
Interest on Water Bonds	77,925 00
Paid into the Sinking Fund $3\frac{1}{2}$ per cent. on $1,776,500	59,902 50
Amount transferred to construction account .	60,000 00
Balance carried to Water Bond Sinking Fund	454 62
	$250,561 05

Comparative Statement of Receipts.

Water rates, fines, etc., for 1893	$242,219 78
Water rates, fines, etc., for 1892	237,527 08
Showing increase of water rates in 1893 . . .	$4,692 70

Comparative Water Supplied.

	Gallons.
Amount of water pumped in 1893	2,234,863,924
Amount of water pumped in 1892	1,961,362,760
Showing increase in 1893	273,501,164

How the Water was Used.

	Gallons.
Amount of water sold by meter	506,523,500
Amount used in watering streets	73,104,850
Amount used for domestic use, fires, fountains and all other purposes	1,655,235,574
	2,234,863,924

Statement of Daily Consumption.

	Gallons.
Daily average pumping for high service through the stand pipe	563,574
Daily average pumping for low service through the reservoir	5,559,341
Showing average daily consumption 1893 . .	6,122,915
Daily average consumption in 1892	5,358,915
Showing daily increase during 1893	764,000

Table showing the Increase of the Consumption of Water during the past Four Years.

	Gallons.	Daily Consumption.	Daily Increase.
Amount pumped in 1890.....	1,638,550,512	4,489,180	307,155
Amount pumped in 1891.....	1,778,056,773	4,871,389	382,209
Amount pumped in 1892.....	1,961,362,760	5,358,915	487,526
Amount pumped in 1893.....	2,234,863,924	6,122,915	764,000

The foregoing table shows that the increase in our daily consumption had more than doubled during the past three years, and very forcibly reminds us of the *imperative necessity* of making additional storage room for retaining the spring flow of water for future use. We have twenty-two miles of water shed, which, if properly utilized, will furnish us an abundance of water for many years to come.

Comparative Rainfall and Height of Water in Fresh Pond Reservoir For the Past Five Years.

Month.	*Rainfall.*					*Water in the Reservoir Below High Water Mark*, 16.85.				
	1889	1890	1891	1892	1893	1889	1890	1891	1892	1893
	In.	In.	In.	In.	In.	Ft.	Ft.	Ft.	Ft.	Ft.
December, 1892.....	6.67	3.36	4.40	6.78	1.23	0.91	1.10	0.58	1.63	2.70
January, 1893.....	6.64	2.94	6.68	4.32	1.87	0.55	1.62	0.72	0.73	1.80
February, "	2.81	5.22	4.61	2.46	6.43	1.07	1.20	0.59	1.05	1.30
March, "	3.29	7.02	5.74	3.56	2.50	1.03	1.06	0.32	1.27	0.20
April, "	3.73	4.83	2.72	0.77	3.25	0.88	0.32	0.30	0.98	0.06
May, "	5.65	6.09	2.44	6.06	7.30	0.87	0.67	0.31	0.50	0.18
June, "	3.41	3.51	4.01	4.23	2.18	0.62	1.01	1.05	0.48	0.17
July, "	8.53	2.77	3.06	2 53	2.26	1.28	2.32	2.15	1.87	0.09
August, "	3.78	3.48	3.68	6.11	5.95	0.84	2.17	3.96	3.74	0.22
September, "	5.30	4.05	2.73	1.84	1.76	2.06	1.92	3.57	3.07	1.24
October, "	3.73	9.31	5.10	2.15	3.77	2.81	2.06	2.51	3.42	4.00
November, "	6.51	1.28	3.08	4.04	1.99	1.75	0.94	2.27	3.96	4.77
						Av.	Av.	Av.	Av.	Av.
Total,.....	60.08	53.80	44.25	44.85	40.49	1.22	1.30	1.53	1.89	1.39

It will be seen by the above table that the rainfall during the past year was the smallest of any year since the water from Stony Brook was introduced into our water supply, and the smallest of the last three years,all of which were considerably below the average of the three preceding years.

Last year we said in our report: "It is more and more apparent that, with the increased consumption of water in our city, we shall need all the use and capacity of the Stony Brook storage basin to meet the demands for water, with the prospect that before many years we shall need an additional source of supply to carry us over the dry months of the year." Our experience this year shows us that the time has already come.

During the past season, in order to put in some screens outside to prevent the leaves and other floating material from clogging up the inside screens and preventing the free flow of water, we were obliged to draw down the water in Stony Brook basin more than fifteen feet, which probably represents more than three-fourths of the available storage capacity of this basin. Not a drop of water ran over the dam at Stony Brook during the months of July, August, September, October and November; and December 1 the water in this basin was $10\frac{30}{100}$ feet below the crest of the dam, showing that to meet our demands we had used the entire flowage of the Brook, and two-thirds of the storage water in Stony Brook basin. This kept Fresh Pond reservoir up until August, when it began rapidly to fall off, until in November, when the water was less than three feet over the conduit leading to our pumps. The Board at this time made the necessary preparation to begin to pump the water from the Pond into our conduit to the pumps. Since then what rains we have had have somewhat increased the height of the water in both Stony Brook basin and Fresh Pond reservoir, and we have hope that we may get through this season without being obliged to pump the water twice over. We still need heavy rains to place the matter beyond doubt.

In addition to the dry weather the ground has frozen earlier than usual, with low water in the springs and streams. All these things point us to the necessity of providing more storage room, retaining the spring flood water, to carry us safely over the dry months of the year, for it will be seen by the above that we not

only used a large part of the storage of Stony Brook basin to keep Fresh Pond full until August, but that after that we used more than five feet of the storage of Fresh Pond reservoir by November.

Stony Brook Supply.

Our situation in regard to water supply is this. We have in the Stony Brook watershed twenty-two square miles. In the usual way of reckoning, this area is capable of furnishing one million gallons daily for each square mile, or in all twenty-two million gallons daily. This of course is provided that when the water comes, it can be stored for use when needed, and not allowed to run to waste.

In proof of the above calculation we invite your attention to our experience of the past six years. The average amount of water wasting over the dam at Stony Brook was in gallons, 6,521,516,916. The average amount used in the same time 1,775,626,093 making the average amount of water from our watershed the past six years 8,297,143,009. Twenty-two million gallons for 365 days is 8,030,000,000 showing an average excess over twenty-two million gallons daily for six years of 267,143,009. But as the average for six years cannot be relied upon, let us now take the past year when, as we have seen, the rainfall was the least for the past six years, and ascertain what our watershed supplied.

We find the amount of water wasting over the dam, during the year 1893, to be in gallons 4,429,101,494; the amount of water pumped in 1893, to be 2,234,863,924; showing the total supply for 1893 to be 6,663,965,418. This gives us a daily supply of 18,531,412 gallons, while our consumption the past year was almost exactly one-third only of this amount; two thirds running to waste. This is an absolute demonstration, that by the general rule of engineers' calculation, the average of six years is correct, and by our own experience that in a dry year, our watershed furnishes three times as much as we use at this time.

With this showing there can be no possible excuse for neglecting to improve our works by the erection of ample storage room for our water, *unless something better can be shown us.* Our atten-

tion was called to an Act of the last Legislature instructing the State Board of Health to examine the whole matter of a "Metropolitan water supply for Boston and ten miles around."

To learn what this plan promised for Cambridge an interview was sought with Mr. Stearns, Engineer of the State Board of Health, by the President of our Board. Mr. Stearns kindly gave him all the information he could in the present state of their study and consideration of the subject referred to them. The interview lasted about one and a half hours. A few days later the President invited our City Engineer to go with him and meet Engineer Stearns. A meeting was arranged and an interview of nearly two hours was the result, in which Mr. Stearns went over the ground again, perhaps a little more in detail as to what might be done. We were cautioned not to make any positive statements as coming from him, as they had not yet finished their study of the situation, or fully decided on what they would report to the Legislature of 1895, which was the time the Act required them to report.

But in regard to the sources of supply, that was pretty well decided upon; we now refer you to the City Engineer's report of our interview with Engineer Stearns:—

HON. C. W. KINGSLEY, *President of Cambridge Water Board:*

DEAR SIR:—In response to your inquiry as to information obtained at the office of the Engineer of the State Board of Health, Mr. Fred P. Stearns, relating to the probable recommendations of the Board to the Legislature for a Metropolitan Water Supply, I may say that Mr. Stearns informs me that no definite plans have as yet been adopted for recommendation. Certain surveys and studies of the matter have been made which indicate the recommendation of a scheme somewhat as follows:—

Sources of Supply.

1. The utilization of the present supply of the municipalities within the district so far as it may be practicable.

2. Supplementing this with an additional supply drawn from the Nashua River at Clinton; at present from the river as it is, and later constructing a large storage reservoir increasing the head and the yield from the river.

3. When these supplies are exhausted going still farther west and bringing a further supply from the Ware River.

Distribution of the Supply.

The connection between Ware River and the Nashua River to be by tunnel in rock. From the Nashua River at Clinton, the supply to be brought partly by tunnel and partly by conduit to a branch stream feeding into the large storage basin No. 5, of the Boston supply now about to be built as a part of the Sudbury River supply of the city of Boston. From this point the water to be brought to Chestnut Hill Reservoir by the present conduits, up to their capacity of about one hundred millions daily. When that is exceeded, by an additional conduit to be constructed. From Chestnut Hill Reservoir the water to be forced by pumps to an elevation sufficient to fill Spot Pond, as a distributing reservoir for the communities northerly and easterly of Boston including Cambridge. The pipes for this purpose passing through or near Harvard square, into which the Cambridge supply might be forced to the capacity of the supply, and any deficiency in the supply to be withdrawn from the pipes.

Capacity of Proposed Supply.

The drainage area of the present Boston supply, Cochituate Lake and Sudbury River basins, is . .	87 square miles
The drainage area of Nashua River, above Clinton, about	117 square miles
The drainage area of Ware River, about	100 square miles
Combined drainage area, about	304 square miles

The expected yield from these principal sources is:—

Cochituate Lake and Sudbury River basins about	60,000,000 gallons daily
Nashua River estimated yield about . . .	114,000,000 gallons daily
Ware River estimated yield about	75,000,000 gallons daily
Total	249,000,000 gallons daily

These quantities can only be obtained, I think, by the construction of enormous reservoirs, and the most careful use of the water stored. The scheme as above outlined may be entirely changed, and especially the part relating to the distribution, upon further examination and study, before the final report is made.

By the act authorizing the investigation, the Board is to report to the Legislature in January, 1895. If the Legislature should take favorable and immediate action on this report, it is not expected that the works would be in condition for use before the year 1900.

Such as I understand it, is the plan at present under contemplation by the engineers of the Board, in its general outline.

The principal reason for delaying or abandoning the proposed extension of the Cambridge supply in anticipation of the possible carrying out of this project, is the hope that the present supply may be supplemented by the State at a cheaper annual cost than could be possible by the extension proposed.

The proposed plan of the State does not offer any better water or higher pressure than that contemplated by the city and for many years the question of quantity would not be an element in the case.

Some of the reasons for carrying out the proposed extension at once by the city, are:—

1. The urgent need for further supply especially during the dry months of the year. The risk of water famine in waiting with the present supply until the water can possibly be obtained from the State supply will be very great. (See statement already made).

2. If eventually the city is obliged to go to the Metropolitan supply, the Cambridge works will by this plan outlined above, be credited with all the water it can furnish, so that the present extension of the Cambridge supply will really be in the line of supplementing the Metropolitan system.

3. If nothing is done, and the city is found to be in extreme need of water, as it certainly will be by the time the Metropolitan system is completed, if their plan should be carried out, the occasion will not likely be neglected to tax the city with a liberal percentage of the cost of the system, in the same manner as was done in the case of the Metropolitan Sewer, where 27.87 per cent of the cost of construction and 26.39 per cent. of the cost of maintenance of the system was charged to Cambridge.

Boston is acting on this line in now commencing an enormous storage basin of seven and one half billion gallons capacity to cost $2,500,000, although the same reservoir is in the direct route of the proposed Metropolitan supply.

Very truly,

L. M. HASTINGS,
City Engineer.

We now present you with calculations made by our City Engineer in regard to the "present standing of our water supply in relation to what may be expected of the supply in a dry year, say in July, August, September and October." As these calculations are made from our own actual experience they are worthy of your careful consideration and confidence.

These calculations show that the limit of our supply in a dry year would be 7,250,000 gallons per day, our average the past year being 6,122,915 gallons per day, and the daily increase

over the previous year being 764,000 gallons, you will see that in less than two years our limit will be reached.

Two years being the earliest possible time for the Metropolitan system to begin work, and the soonest possible time the water could reach us being three years more. The folly of waiting on such a source of supply will manifest itself to all who know our past experience and consider the facts herein stated.

In order that the fullest information should be furnished the executive head, and City Council in regard to our condition, and the prospective supply from a Metropolitan source, a meeting was arranged with the chairman and engineer of the State Board, at which the Mayor and a sub-committee of the Finance Committee of the City Council and others were present. After this meeting, when nearly three hours were spent in going over the whole ground, the following statement was presented to the whole Finance Committee.

It will thus be seen that the Water Board, the Mayor and the City Council, by its Committee on Finance, have given this whole matter their careful consideration, and whatever action your honorable body may take it will be done intelligently and without doubt will be for the best interest of our goodly city, in one of its greatest needs in health and prosperity.

CAMBRIDGE, Dec. 23, 1893.

To the Members of the Finance Committee:

GENTLEMEN:—We herewith present to you the facts in the matter of our water supply, which were presented to the Chairman and Engineer of the State Board of Health at the interview with them and sub-committee of the Finance Committee with the Mayor, City Engineer, President and Superintendent of the Water Board present, and no objection or fault was found by them with our figures or statements as regards our need of a supply. Since that meeting the City Engineer has made other calculations bearing on the matter which are hereto appended.

Matters Presented.

Is there any good reason why Cambridge should not proceed and improve her supply?

The Legislature has appointed the State Board of Health to examine the matter of a Metropolitan Water Supply for Boston, and ten miles around, with instructions to report in January, 1895.

Under the most favorable circumstances, it is conceded that this work could not be completed to Nashua River in less than five years from now.

Can Cambridge with the present condition of her water works, wait for this proposed supply, supposing it was completed within the time named, in 1898?

Table showing the increase of the consumption of water during the past four years:

	Gallons.	Daily Consumption.	Daily Increase.
Amount pumped in 1890.....	1,638,550,512	4,489,180	307,155
Amount pumped in 1891.....	1,778,056,773	4,871,389	382,209
Amount pumped in 1892.....	1,961,362,760	5,358,915	487,526
Amount pumped in 1893.....	2,234,863,924	6,122,915	764,000

Matters of Inquiry.

1. Has Cambridge an ample supply of water to last many years if properly utilized, granted to her by the Legislature and taken and paid for by the city?

The rainfall in 1893 was the least of any year since Stony Brook was let into Fresh Pond, in November, 1887. Let us see. The amount of water wasting over the dam at Stony Brook in 1893 was 4,429,101,494 gallons. Amount of water pumped in 1893, 2,234,863,924 gallons; showing the total supply of 1893, 6,663,965,418 gallons, one-third of which we used; two-thirds wasted.

For the minimum yield for a year like 1880, see statement of the City Engineer appended.

2. Can Cambridge utilize this water running to waste, at a reasonable cost?

It is proposed to build a storage basin of 1,500,000,000 capacity at an estimated expense of $600,000.

Boston has built five storage basins retaining 5,116,400,000 gallons at an average cost of $473.77 per million gallons.

Our estimate is for $400 per million gallons. Having now settled the point that Cambridge has an abundant supply of water for many years, paid for, that can be utilized at a very reasonable outlay, *the question now at issue is what is the present available daily supply?*

During the entire year of 1886, careful gauges were made of the flow of Stony Brook, and the results were as follows, in four months, say:

In July the average daily flow was	1,400,000 gallons
In August the average daily flow was	700,000 gallons
In September the average daily flow was	700,000 gallons
In October the average daily flow was	1,200,000 gallons
Making the average from this source . . .	1,000,000 gallons

The storage of Fresh Pond to grade 9.00 is . . .	400,000,000 gallons
The storage of Stony brook basin is	300,000,000 gallons
Making the total storage	700,000,000 gallons
Deduct for evaporation	60,000,000 gallons
Leaving available storage water	640,000,000 gallons

or about 5,000,000 gallons daily.

If we now take the natural yield of Fresh Pond at its best, we find a daily yield of	1,250,000 gallons
Daily yield from Stony Brook	1,000,000 gallons
Daily amount from storage	5,000,000 gallons
And we have as our daily supply	7,250,000 gallons

We have seen that our daily consumption for 1893 was 6,122,915 gallons, the daily increase from 1892 was 764,000 gallons. If this should increase the next two years as much, our daily consumption would be say:—

In 1893	6,122,915 gallons
In 1894	6,886,915 gallons
In 1895	7,650,915 gallons

and this would pass the point where we would have to pump the water twice over.

Our conduit, when Stony Brook basin is full, will discharge about 9,000,000 gallons daily; when drawn down fifteen feet at Stony Brook it will discharge about 8,000,000 gallons daily; and these are outside estimates of the capacity of our conduit.

Now if we draw Fresh Pond down to grade 9.00, which it was agreed is as low as it ought to be drawn, except in a great exigency, we have exhausted thus 400,000,000 gallons of our storage. Mr. Stearns agreed that we would reach a consumption of 7,000,000 gallons daily in two years; with Stony Brook basin full it would require 200 days to refill Fresh Pond.

C. W. Kingsley,

President of Cambridge Water Board.

Exhibit showing the loss of water stored in the Stony Brook and Fresh Pond basins for the last five years; this loss being the excess of the consumption over the supply yielded by the sources as now existing. It is proposed to meet this increasing deficiency by increasing the amount of water held in store by the proposed storage basin at Hobbs Brook.

Date.	FRESH POND. Elevation of water in feet.	FRESH POND. Gallons of stored water consumed below high water line.	STONY BROOK BASIN. Elevation of water in feet.	STONY BROOK BASIN. Gallons of stored water consumed below high water line.	STONY BROOK BASIN. Total gallons of stored water consumed.
October 13, 1889.....	13.85	161,524,000	81.35	Water wasting.	161,524,000
September 6, 1890.....	15.24	87,513,000	71.66	199,040,000	286,553,000
November 10, 1891.....	14.87	107,294,000	72.20	228,313,000	335,607,000
November 10, 1892.....	12.64	224,996,000	69.56	238,456,000	463,452,000
November 3, 1893.....	11.67	274,995,000	71.72	197,885,000	472,880,000

Present available Storage, Fresh Pond.....400,000,000 gallons.
Stony Brook.....300,000,000 "
Proposed Hobbs Brook Storage Basin.....1,500,000,000 "

Exhibit showing capacity of Cambridge Water Works if storage basin of 1,500,000,000 gallons capacity is built on Hobbs Brook.

Yield of Stony Brook for a year like 1880: Rainfall for year 31.910 inches. Rainfall flowing off 12.182 inches. Area of watershed 22 square miles.

DATE.	INCHES RAINFALL FLOWING OFF PER MONTH.	TOTAL MONTHLY FLOW, GALLONS. Consumption in Excess of Yield.	TOTAL MONTHLY FLOW, GALLONS. Yield in Excess of Consumption.	MONTHLY CONSUMPTION AT 13,000,000 GALS. DAILY. Consumption in Excess of Yield.	MONTHLY CONSUMPTION AT 13,000,000 GALS. DAILY. Yield in Excess of Consumption.
January.....	2.000	764,610,000	.....	403,000,000	.....
February.....	2.982	1,140,035,000	.....	367,250,000	.....
March.....	2.451	937,030,000	.....	403,000,000	.....
April.....	2.017	771,100,000	.....	390,000,000	.....
May	0.917	.....	350,580,000	.....	403,000.000
June.....	0.303	.....	115,840,000	.....	390,000,000
July.....	0.315	.....	120,430,000	.....	403.000,000
August.....	0.212	.....	81.049,000	.....	403,000,000
September.....	0.138	.....	52,759,000	.....	390,000,000
October	0.181	.....	69,197,000	.....	403,000,000
November.....	0.354	.....	135,340,000	.....	390,000,000
December.....	0.312	.....	119,280,000	.....	403,000.000

Yield during 8 months..	1,044,475,000	3,185,000,000
		1,044,475,000
Deficiency of yield in 8 months to be made up from storage.....		2,140,525,000

Amount of storage to supply deficiency:—

Stony Brook basin	300,000,000 gallons
Fresh Pond basin	400,000,000 gallons
Proposed Hobbs Brook basin	1,500,000,000 gallons
Total storage	2,200,000,000 gallons
Required storage	2,140,525,000 gallons

Capacity of works in dryest year:—

Stony Brook as above	13,000,000 gallons daily
Fresh Pond	1,250,000 gallons daily
Total	14,250,000

Yield as given by F. P. Stearns, Engineer State Board of Health, Annual Report State Board of Health, 1890, page 342:—

Volume per square mile, 600,000 gallons by 22 square miles, 13,200,000 gallons daily yield:—

Storage required 105,000,000 gallons by 22 square miles	2,310,000,000
Storage as given above	2,200,000,000

Length of time for which the works, if extended, will supply Cambridge:—

Population by Census of 1890	70,028
Estimated population, 1920	154,930
Estimated population, 1925	178,169 at 80 gallons per capita
Equals	14,253,520 gallons daily
Yield of works	14,250,000 gallons daily

Estimated yield of Metropolitan Supply	240,000,000 gallons daily
Estimated population of Metropolitan District in 1935	2,948,893
Requirements in 1935, 80 gallons per capita	235,900,000 gallons daily

Population Cambridge (estimated), 1915	140,850
At 100 gallons per capita equals	14,085,000 gallons daily

Population Metropolitan District (estimated), 1927, equals	2,396,146
At 100 gallons per capita, equals	239,614,600 gallons daily

The above estimates of population are based on the estimates given in the Annual Report of the Boston Water Board for 1892.

L. M. Hastings,
City Engineer.

City Engineer's Office, City Hall, Cambridge, Dec. 23, 1893.

Conclusions Drawn from the foregoing Statements.

In the opinion of your Water Board this is the most important matter in connection with our water supply since the introduction of the Stony Brook water into Fresh Pond, and we are unanimous in our opinion that the only wise, safe, and proper thing for the city to do is to proceed at once and improve our present resources, which are ample, without regard to uncertain, problematical and outside issues, and for some of the following reasons.

1. We have an abundant supply of water for the next twenty-five or thirty years that can be utilized at a reasonable cost.

2. We shall be independent, have charge of our own water works, and be in condition to say we do not want the proposed Metropolitan water for many years. Meantime let those pay who need it, and, when we want it, we will pay for all we need.

3. By their own calculations, under the most favorable circumstances, such as the Legislature granting all the powers they need in 1895, the year of their report, and the means are provided by the State credit or otherwise, they cannot probably come to our relief until the year 1898. We know by experience and observation, that works of this magnitude are never done within the time estimated, meantime we shall be reduced to begging for water, and as necessity knows no choice, we shall have to take what is offered on any terms they may choose to fix on us.

4. Mr. Stearns said we had a good watershed and it might be put in as a part of the general system when it was completed so that it would be natural and only just that our water works, if absorbed, should be taken and paid for at a fair apprisal, so that what we might spend to improve them for ourselves, and in such a case for others, would be allowed to the City of Cambridge, as well as parts of the Boston system that would also be put into the general system of water supply be allowed to Boston.

5. Boston does not propose to wait for a Metropolitan supply, but is now proceeding to build Storage Basin No. 5, on the

Sudbury system, capable of storing seven and one-half billion gallons of water, which is equal to all the storage capacity she now has in Lake Cochituate, Sudbury River and five other storage basins already built, and now in use, thus preparing herself for a supply for years to come. Shall we not follow the example of our greater neighbor and go on and improve our present supply, over which hangs no doubt, as to time, or adequate supply, to meet our wants?

6. Another reason why we should proceed, is that the estimated cost of our proposed storage basin comes below the average cost per million gallons of the reservoirs built by Boston for the same purpose. Below we give you the actual cost of five already built by Boston and now in use, and the estimated cost of the sixth one that she is now about to build, to cost $2,500,00.

Number.	Acres Flowed.	Gallons Stored.	Cost per Million Gallons.
Basin No. 1.....	143	376,900,000	$502 38
" " 2.....	134	568,300.000	529 75
" " 3.....	253	1,224,500,000	309 64
" " 4.....	167	1,416,400,000	556 15
" " 6.....	185	1,530,300,000	526 10
" " 5.....	Estimated 1220	7,438,000,000	336 12
Total.....			$2,760 14
Making the average cost per million gallons.....			$460 02

As No. 5 is a very large reservoir, we will now compare the three coming the nearest to our proposed storage of 1,500,000,000 gallons, say:—

Basin No. 3 flows 253 acres, stores	1,224,500,000	Cost,	$309 64
Basin No. 4 flows 167 acres, stores	1,416,400,000	"	556 15
Basin No. 6 flows 185 acres, stores	1,530,300,000	"	526 10
Total			$1,391 89
Making the average cost per million gallons to be			$463 96

By these calculations it will be seen that our engineer's estimate of $600,000 for a storage of 1,500,000,000 is lower than the above, being $400 per million gallons. We know that a much larger sum can be spent in ornamental finishing, but our engineer thinks he has provided in his estimates for all that is necessary in a good basin.

The Water Board had sent the communication to the City Council, asking for authority to contract for what was necessary to complete our high-service reservoir and its connections, and build the proposed storage basin before our attention was called to this scheme for a Metropolitan supply. But all our investigations since have only confirmed us in the view that what we proposed to do, and asked of the City Council, the means to carry out our plans, is the only safe and proper thing to do for the best interests of the city.

We herewith submit to you the City Engineer's estimates, made at our request, of the probable cost of the extension of the water works, in accordance with plans contemplated in the communication recently sent by this Board to the City Council and now before your honorable body for action :—

Hon. C. W. Kingsley, *President of Cambridge Water Board:*

Dear Sir:—As requested by you, I have prepared an estimate of the probable expense of the proposed extension to the water supply system of the city. The estimates given are prepared from such data as I could procure in the limited time, and must be considered as approximate only. I think that the work can be done within the aggregate given.

Estimate.

STORAGE BASIN ON HOBBS BROOK.

Area flowed about 350 acres, capacity 1,500,000,000 gallons, ...		$600,000 00

DISTRIBUTING RESERVOIR AT PAYSON PARK.

Capacity 40,000,000 gallons	$175,000 00	
Gate-house and fittings	25,000 00	
		$200,000 00

PUMPING ENGINE.

Vertical, triple expansion, high-duty, capacity 20,000,000 gallons daily	$130,000 00	
2 Belpaire locomotive-type boilers . . .	25,000 00	
Foundations and alterations	15,000 00	
		170,000 00

FORCE AND SUPPLY MAINS (DISTRIBUTING RESERVOIR TO OLD PUMPING MAINS).

40 inch diameter, 18,000 feet	$180,000 00	
Gates and fittings	25,000 00	
		205,000 00
Total		$1,175,000 00

This last item brings the supply main to a junction with the old force mains. The supply main ought, however, to be carried to or near Harvard square, and there be connected directly to the center of the distributing pipe system of the city, making the total sum required as follows:—

Aggregate as above	$1,175,000 00
6,500 feet 40-in. supply pipe from crossing of old force main to Harvard square, gates, etc., ...	75,000 00
Total	$1,250,000 00

Very truly,

L. M. HASTINGS,
City Engineer.

To provide the means to carry out these plans we recommend that an application be made to the Legislature for the right to issue one million dollars more of water bonds than we now have the right to issue, the same to be used for the extension and other improvements of the water works, and protection of its water supply; also, that an application be made to the Legislature to repeal so much of the Act of 1884, in regard to the use of Stony Brook Basin, as "provided that Cambridge shall not draw any water from said reservoir or storage basin for its own use, except when the water is running to waste over the dam, without the consent of Waltham and Weston."

Our experience the past year proves that the City of Cambridge could not have got along without the use of the storage water in this basin, and neither Waltham or Weston are making any use of it whatever.

We have thus in detail presented the whole matter to your honorable body, so that you can act with a full knowledge of the facts involved, as may seem to you for the security of our water supply, and thus for the best interest of the city.

We have also desired to put it in such shape, that the record of our views, and the reasons therefor, might be preserved for future reference, fully assured that time will prove that our recommendations were timely and wise, both as to an additional water supply, and as a business transaction, in relation to what may be our future relations to a Metropolitan water supply.

Here we leave the whole matter, and the responsibility with your honorable body, whose servants we are, and fully aware that without your coöperation in providing the means, the Water Board is unable to do anything.

Work Done.

During the past year a new house has been built for our pumping engineer, on the lot opposite our engine house on the corner of Lexington avenue and Worthington street, which will leave the present house near our coal sheds free, and it can be moved and used elsewhere, to advantage.

A large amount of work has been done in the renewal of pipes that have been filled up by age, and were unable to supply water for domestic or fire purposes, also some extension pipes have been laid where proper service required it.

If the plans we have recommended are carried out, we do not anticipate any further considerable expense will have to be incurred in connection with our water works until the consumption exceeds nine million gallons per day, when another main will have to be laid from Stony Brook to Fresh Pond Reservoir.

Extension of Huron Street.

During the year the iron bridge over the Watertown Branch Railroad has been completed, and another iron bridge over our pipe line near Holworthy street has been finished; our account with that street stands as follows:—

Cost of iron bridge over Watertown Branch Railroad	$7,485 44
Cost of iron bridge near Holworthy street	6,542 00
Cost of land bought of Lee and Mantor, trustees	1,801 20
Amount expended by the Street Department	10,295 20
Total amount expended during the past year	26,123 84

It is estimated to cost about $3,000 more to finish the street.

Work that Should be Done the Coming Year in Addition to that Already Named.

1. The work of filling and grading the low places around the Fresh Pond reservoir should be continued, until all are filled, and the surroundings of our beautiful reservoir present a clean and attractive appearance.

2. Huron street should be completed at an early day, and when it is completed we would recommend that a more significant name be given to the avenue leading from Concord avenue, through Huron street, Cushing, Grove and Adams streets to Concord avenue again; we suggested last year "Fresh Pond avenue."

3. Remove the old engineer house around to the corner of Lakeview avenue and Vassal lane, and furnish it into two tenements for the use of our firemen, as it is very desirable that they should live near the pumping engine house, where they can be readily called in any emergency.

4. A suitable fence should be built around our pumping engine house, and Tudor Park, and a cart for sprinkling the driveway around the reservoir, to keep down the dust, and help keep the roadway in good order, should be procured.

Around Fresh Pond Reservoir.

During the year the work of filling the low, swampy places around this reservoir has been continued with gratifying results, about 91,000 cubic yards of filling have been used in this grading, about 26,000 cubic yards of loam have been used, in covering the material from the clay and gravel bank, and thus preparing the surface for seeding down to grass. The land of the Fresh Pond Ice Company has also been leveled and properly graded. The roadway around the borders of the reservoir has been completed, and is now much frequented for pleasure travel. This work should continue until all the surroundings of the reservoir shall present a clean and attractive appearance.

Land About Fresh Pond Reservoir.

During the year a settlement has been made with Dr. Somers for land on Concord avenue taken from him, for which we paid

$9,800 less than the award of the Commissioners, with interest and charges ; settlement has been made with several of the owners of estates on Strawberry Hill taken by the city ; but there are still several unsettled. As the streets have been laid out, and recently developed, to perfect the protection of our water supply in Fresh Pond Reservoir, we think the city should secure the tract of about six acres bounded by the Watertown Branch Railroad, Fresh Pond lane, and Huron street, also the city should secure possession of the land used by the Fitchburg Railroad as a freight yard, running from Concord avenue into and over land formerly of Dr. Somers.

High Service Supply.

The engine we bought last year for this service has been doing satisfactory work, and the two high service pumps we now have, will continue to furnish our citizens on the highlands until the completion of Payson Park reservoir, when all parts of the city will be furnished with a satisfactory high service.

Remarks.

We are pleased to be able to report that our Water Works, so far as they have been developed are in a first-class condition, whether we consider the *quality* of the water, the *price* at which the water is furnished to our citizens and manufacturers, or the *financial standing* of our Water Works. All these so far have proved to be a success, and we see no reason why like good results may not continue for many years to come.

Reference to Other Reports.

For more detailed statements of what has been done, and the present condition of our Water Works, we would refer you to the reports of our Superintendent, Registrar, and Pumping Engineer, which we herewith transmit to you as a part of our

Report of the Servants of the Board.

It gives us pleasure to testify anew to the faithful and competent *Superintendent*, he is thoroughly conversant with the wants and needs of his department and takes the interest in all

the details as if it was his own. Our *Registrar* is a model officer, looking after and keeping well in hand all the details of his office, and ready at all times to furnish any information in regard to matters in his charge. Our *Pumping Engineer* is capable, and well informed in regard to the business in his charge, and keeps the building and machinery in tidy and first-class condition. The City Engineer and Solicitor have rendered valuable and cheerful assistance, and all other employees of the Board have rendered satisfactory service.

Respectfully submitted,

C. W. KINGSLEY,
JAMES M. W. HALL,
JOHN F. O'BRIEN,
E. BURT PHILLIPS,
GEO. H. HOWARD.

REPORT

OF THE

WATER REGISTRAR.

WATER REGISTRAR'S OFFICE,
CAMBRIDGE, December 11, 1893.

To the Cambridge Water Board:—

GENTLEMEN:—In compliance with the requirements of the City Ordinance, I present the twenty-ninth annual report of the operations of this department, showing the receipts, expenditures and abatements, together with a statement of the number of water-takers, etc., for the year ending November 30, 1893.

Amount of bills remaining unpaid, November 30, 1892:—

Water Rates	$670 40
Meter "	358 98
Supplies and repairs	1,785 66
Off and on	55 00
Seals	3 00
Rent	16 00

Amount of bills placed in hands of City Treasurer for collection from Nov. 30, 1892, to Nov. 30, 1893:—

Water rates	$184,957 89	
Meter rates	62,981 40	
Supplies and repairs	6,091 63	
Off and on	671 00	
Seals	103 00	
Rent	1,191 32	
Fines	4 00	
Total bills		$258,889 28

There have been collected:—

Water rates	$243,907 12
Off and on	623 00
Rents	582 63
Seals	98 75
Fines	4 00
Supplies and repairs	6,169 64

There have been abated:—

Water rates	3,131 65
Supplies and repairs	5 45

There remain unpaid:—

Water rates	847 80
Meter rates	1,115 60
Supplies and repairs	1,702 20
Off and on	70 00
Seals	6 75
Rent	624 69
	$258,889 28

Expenditures.

Construction acc't (Stony Brook)		$1,993 27	
" " (Payson Park Reservoir)		35,733 98	
" " (Fresh Pond Land)		61,038 37	
" " (Fresh Pond Reservoir)		86,809 94	
" " (general)		49,885 02	
Maintenance account, viz.:—			
Care and repairs	$27,199 55		
Pumping service	13,683 09		
Office expenses	4,273 43		
Rent of offices and shop	2,000 00		
		47,156 07	
Supply and repairs account		5,122 86	
			$287,739 41

Abatements.

Water rate bills to the amount of	$3,131 65
Supply and repair bills to the amount of	5 45
Total abatements	$3,137 10

Refunds.

Water rates to the amount of	$1,687 34	
Which amount deducted from receipts	243,907 12	
Leaves net receipts for water	$242,219 78	
Add off and on, rents, seals and fines	1,308 38	
Makes net receipts of " rates, fines, etc."		$243,528 16

Off and On.

Water has been shut off for non-payment of rates or per order on account of vacancy, and seals have been applied to fixtures by request of owners or occupants as follows:—

Supplies shut off in 1893	612
Supplies let on, shut off in 1893	484
Supplies let on, shut off in previous years	64
New supplies let on	403
Seal locks applied to fixtures in 1893	644
Seal locks removed, put on in 1893	274
Seal locks removed, put on in previous years	284

Comparative Statement.

	1892.		1893.	
Construction Acc't (Stony Brook).				
RECEIVED.				
From bonds issued	$75,000 00			
From premium on bonds	4,567 50			
From G. F. Haynes (one-half "Sibley" stenographic report)	415 85			
Balance of appropriation from 1892		$79,983 35	$3,854 70	
				$3,854 70
EXPENDED.				
Settlement for estates taken, etc.	$71,727 32		$1,993 27	
Cash advanced by the city, 1890-1	4,401 33			
Balance of appropriation	3,854 70		1,861 43	
		$79,983 35		$3,854 70
Construction Acc't (Fresh Pond Land).				
RECEIVED.				
Balance of appropriation	$11,594 55		$34,604 74	
From bonds issued	125,000 00		45,000 00	
From premium on bonds	5,712 50		1,255 00	
		$142,307 05		$80,859 74
EXPENDED.				
Purchase and settlement of sundry estates	$107,702 31		$61,038 37	
Balance of appropriation	34,604 74		13,180 60	
Transferred to construction account (general)			6,640 77	
		$142,307 05		$80,859 74
Construction Acc't (Payson Park Reservoir).				
RECEIVED.				
From bonds issued			$40,000 00	
From premium on bonds			1,480 00	
				$41,480 00
EXPENDED.				
Settlement for land taken, etc.			$35,733 98	
Balance of appropriation			5,746 02	
				$41,480 00
Construction Acc't (General).				
RECEIVED.				
From bonds issued	$70,000 00		$65,000 00	
From premium on bonds	2,560 00		1,965 00	
From sale of buildings at Fresh Pond	7,200 00		3,089 19	
From excess of receipts from rates, fines, etc	1,635 47		60,000 00	
Transferred from Fresh Pond land account		$81,395,47	6,640 77	
				$136,694 96
EXPENDED.				
Sundry bills		81,395 47		136,964 96

Comparative Statement—*Continued.*

	1892.		1893.	
Maintenance Account.				
RECEIVED.				
Accrued interest on water bonds...	$925 01	.....	$644 45	
Sale of engine, boilers, hay, fruit, etc., at Fresh Pond	413 50	.....	218 80	
From "Rates, fines, etc.".....	238,986 04	.....	243,528 16	
		$240,324 55		$244,391 41
EXPENDED.				
Care and repairs.....	$46,753 13	.....	$47,156 07	
Interest on water debt.....	88,165 00	.....	77,925 00	
Paid to sinking Fund Commissioners	62,177 50	.....	59,902 50	
		$197,095 63		$184,983 57
Excess of receipts.....	.....	$43,228 92	.....	$59,407 84
Supply Account.				
Received	$7,002 39	.....	$6,169 64	
Expended	7,300 86	.....	5,122 86	
Excess of expenditures.....	.....	$298 47		
Excess of receipts.....	.....	.....	.....	$1,046 78

1892.	Maintenance Account, excess of receipts.....	.....	$43,228 92
	Supply Account, excess of expenditures.....	$298 47	
	Transferred to Street Department, appropriation by order of City Council.....	10,000 00	
	Transferred to Construction Account by order of the City Council.....	4,909 01	15,207 48
	Balance due Sinking Fund.....	.....	$28,021 44
1893.	Maintenance Account, excess of receipts.....	.....	$59,407 84
	Supply Account, excess of receipts	.....	1,046 78
	Excess of total receipts over total expenditures.....	.....	60,454 62
	Transferred to Construction Account (general) by order of the City Council.....	.....	60,000 00
	Balance due the Sinking Fund.....	.....	454 62

The excess of receipts for 1893, as shown in the above comparative statement, amounting to $454.62, has been carried to the Sinking Fund, as required by law.

Statement of the yearly revenue received from water rates since the purchase of the works by the city:—

From April	28,	1865,	to Dec.	1,	1865	$32,367 19
" Dec.	1,	1865,	"	1,	1866	40,073 27
" "	1,	1866,	"	1,	1867	52,733 62
" "	1,	1867,	"	1,	1868	63,747 42
" "	1,	1868,	"	1,	1869	76,149 30
" "	1,	1869,	"	1,	1870	92,606 95
" "	1,	1870,	"	1,	1871	111,782 65
" "	1,	1871,	"	1,	1872	127,201 30
" "	1,	1872,	"	1,	1873	146,117 32
" "	1,	1873,	"	1,	1874	153,634 27
" "	1,	1874,	"	1,	1875	138,880 37
" "	1,	1875,	"	1,	1876	179,166 76
" "	1,	1876,	"	1,	1877	154,843 59
" "	1,	1877,	"	1,	1878	157,443 91
" "	1,	1878,	"	1,	1879	164,681 90
" "	1,	1879,	"	1,	1880	173,325 49
" "	1,	1880,	"	1,	1881	170,062 73
" "	1,	1881,	"	1,	1882	177,430 80
" "	1,	1882,	"	1,	1883	179,361 89
" "	1,	1883,	"	1,	1884	161,526 27
" "	1,	1884,	"	1,	1885	185,544 36
" "	1,	1885,	"	1,	1886	199,404 43
" "	1,	1886,	"	1,	1887	204,748 64
" "	1,	1887,	"	1,	1888	211,156 27
" "	1,	1888,	"	1,	1889	221,124 70
" "	1,	1889,	"	1,	1890	231,116 32
" "	1,	1890,	"	1,	1891	227,054 53
" "	1,	1891,	"	1,	1892	237,527 08
" "	1,	1892,	"	1,	1893	242,219 78

In addition to the manufactories, etc., supplied through meters, water is supplied to 18,613 families, 1,354 stables, with 3,155 horses and 342 cows, 295 shops, 664 offices and stores, by the following fixtures, viz.:—

22,150 faucets,
6,283 wash-basins,
5,664 wash-tubs,
4,431 bath-tubs,
524 slop-closets,
13,869 pan-closets,
15 hopper-closets,
89 urinals,
29 yard hydrants,
5 fountains,
29 tumbler-washers,
1,693 hand hose,
6 motors.

Also,

805 fire hydrants (besides 19 on private premises),
8 fire reservoirs,
20 drinking fountains in public squares,
56 street watering standpipes.

The above schedule of fixtures is exclusive of school houses, engine houses, police stations, and other city buildings.

The annual house-to-house inspection of the service pipes and fixtures on the premises of the water takers has been made with the usual satisfactory results.

Respectfully submitted,

WALTER H. HARDING,

Registrar.

REPORT

OF THE

COMMITTEE ON ACCOUNTS OF THE CAMBRIDGE WATER BOARD.

We have examined the abstract of accounts as presented by the Water Registrar, covering the records of the past year; we have compared it with the statements submitted by the City Treasurer and Auditor, and we find the Treasurer reports having collected five (5) cents more than the amount of bills as shown in the Registrar's statement. Where this discrepancy exists your Committee cannot determine. The Auditor's report does not explain it and as the Treasurer does not state the amount of bills received from the Registrar, we are unable to so compare the accounts as to prove which is correct. Otherwise the statements submitted by the several officials are in agreement. Annexed is the financial statement presented to us by the Water Registrar, and verified by us as stated above:—

Amount of bills in hands of City Treasurer, November 30, 1892:—		
Water rates	$1,029 38	
Supplies and repairs	1,785 66	
Off and on and seals	58 00	
Maintenance account,	209 38	
Rents	16 00	
		$3,098 42
Amount of bills delivered to City Treasurer for collection during the year ending, November 30, 1893:—		
Water rates	$184,957 89	
Meter rates	62,981 40	
Supplies and repairs	6,091 63	
Off and on, rents, seals and fines	1,969 32	
Maintenance account,	268 80	
Construction account,	3,253 19	
		259,522 23
Total bills		$262,620 65

There have been collected	$254,693 13	
There have been abated	3,137 10	
Balance uncollected, Nov. 30, 1893, water rates	1,963 40	
Balance uncollected, Nov. 30, 1893, supplies and repairs	1,702 20	
Balance uncollected, Nov. 30, 1893, off and on and seals	76 75	
Balance uncollected, Nov. 30, 1893, rents	624 69	
Balance uncollected, Nov. 30, 1893, maintenance acc.,	259 38	
Balance uncollected, Nov. 30, 1893, construction acc.,	164 00	
		262,620 65
Total collections on rates, fines, etc., and supplies and repairs	$254,693 13	
Less rates refunded	1,687 34	
Net collections		$253,005 79

JAS. M. W. HALL,
E. BURT PHILLIPS, } *Committee on Accounts.*

CAMBRIDGE, Dec. 1, 1893.

CITY OF CAMBRIDGE,
OFFICE OF CITY TREASURER,
December 1, 1893.

To the Cambridge Water Board:

GENTLEMEN: I give you herewith a record of the transactions between the Water office and the City Treasurer's office during the year ending November 29, 1893 :—

Gross collections for account of Water Works, rates, fines, etc."	$248,347 20
Abatement certificates received and paid on "Water Rates"	3,131 65
Gross collections for account of "Water works supply account"	6,175 09
Abatement certificates received and paid on "Suppply account"	5 45
"Refund checks" have been presented and paid to the amount of	1,687 34
The uncollected bills in my hands November 29, 1893, for account of "Maintenance" and "Water Rates" are	2,924 22
The uncollected bills in my hands Nov. 29, 1893, for account of "Supplies, repairs, etc.," are	1,702 20
The gross collections on account of "Water Works, Maintenance," are	218 80
The gross collections on account of "Water Works, construction, general account" are	3,089 19
The uncollected bills in my hands Nov. 29, 1893, for account of "Construction, general account" are	164 00

Very respectfully,

WM. W. DALLINGER,
City Treasurer.

OFFICE OF CITY AUDITOR, CITY HALL,
CAMBRIDGE, December 14, 1893.

To the Cambridge Water Board:

GENTLEMEN: I herewith present a statement from my books for the year ending November 30, 1893:—

WATER WORKS, (CONSTRUCTION).

Amount of uncollected bills in City Treasurer's hands Dec. 1, 1892		$130 00
Amount of bills placed in City Treasurer's hands for collection $3,123 19 together with amount of premium on Bonds sold of $1,665 00		4,788 19
Total		$4,918 19
Amount collected by City Treasurer, premium on Bonds	$1,665 00	
Amount collected by City Treasurer, other revenue	3,089 19	
		4,754 19
Balance uncollected		$164 00

WATER WORKS, (MAINTENANCE).

Amount of uncollected bills in City Treasurer's hands, Dec. 1, 1892		$209 38
Amount of bills placed in City Treasurer's hands for collection		268 80
Total		$478 18
Amount collected by City Treasurer		218 80
Balance uncollected		$259 38

WATER WORKS, (RATES, FINES, ETC.).

Amount of uncollected bills in City Treasurer's hands, Dec. 1, 1892		$1,103 38
Amount of bills placed in City Treasurer's hand for collection		249,908 61
Total		$251,011 99
Amount collected by City Treasurer		248,347 20
Balance uncollected		$2,664 79

Amount of abatements allowed by City Treasurer .	$3,131 65	
Amount of refunds paid by City Treasurer . . .	1,687 34	

WATER WORKS, (SUPPLIES).

Amount of uncollected bills in City Treasurer's hands, Dec. 1, 1892	$1,785 66
Amount of bills placed in City Treasurer's hands for collection .	6,091 63
Total	$7,877 29
Amount collected by City Treasurer	6,175 09
Balance uncollected	$1,702 20

Amount of abatements allowed by City Treasurer .	$5 45	

Respectfully submitted,

HARRY T. UPHAM,
City Auditor.

ANNUAL STATEMENT OF THE WATER REGISTRAR TO THE COMMITTEE ON ACCOUNTS, DECEMBER 1, 1893.

Water rates unpaid Nov. 30, 1892 . .		$1,029 38
Off and on bills unpaid Nov. 30, 1892 .		55 00
Rent bills unpaid Nov. 30, 1892 . . .		16 00
Seal bills unpaid Nov. 30, 1892 . . .		3 00
Maintenance bills unpaid Nov. 30, 1892		209 38
Bills placed in hands of City Treasurer for collection from Dec. 1, 1892, to Dec. 1, 1893:—		
Water rates from annual ledgers . .	$171,241 62	
Water rates from fractional ledgers .	13,716 27	
Water rates from meter ledgers . .	62,981 40	
Off and on water	671 00	
Rents	1,191 32	
Fines	4 00	
Maintenance account	268 80	
Seals	103 00	
		250,177 41
		$251,490 17

Amount brought forward. . . .		$251,490 17	
Supply and repair bills unpaid Nov. 30, 1892	$1,785 66		
Supply and repair bills placed in hands of the City Treasurer for collection from Dec. 1, 1892, to Dec. 1, 1893 . .	6,091 63		
		7,877 29	
Bills on construction account, from Dec. 1, 1892, to Dec. 1, 1893		3,253 19	
Total bills			$262,620 65
There has been collected, annual ledgers	$171,037 62		
There has been collected, fractional ledgers	10,689 72		
There has been collected, meter ledgers	62,179 78		
There has been collected, off and on ledgers	623 00		
There has been collected, rents . . .	582 63		
There has been collected, seals . . .	98 75		
There has been collected, fines . . .	4 00		
There has been collected, maintenance account	218 80		
Total collection on "Rates, fines, etc."		$245,434 30	
Collections on supply and repairs account	$6,169 64		
Collections on construction account . .	3,089 19		
		9,258 83	
Total collections		254,693 13	
There has been abated, water rates . .	$3,131 65		
There has been abated, supplies and repairs	5 45		
There remain uncollected, water rates .	1,963 40		
There remain uncollected, supplies and repairs	1,702 20		
There remain uncollected, off and on .	70 00		
There remain uncollected, seals . . .	6 75		
There remain uncollected, rents . . .	624 69		
There remain uncollected, maintenance account	259 38		
There remain uncollected, construction account	164 00		
		7,927 52	
			$262,620 65
Total bills for collection		$262,620 65	
Less abated	$3,137 10		
Less refunded	1,687 34		
Less unpaid	4,790 42		
		9,614 86	
Net receipts			$253,005 79

Attest: WALTER H. HARDING,
Registrar.

REPORT

OF THE

SUPERINTENDENT OF THE WATER WORKS.

CAMBRIDGE, November 30, 1893.

To the President and Members of the Cambridge Water Board:—

GENTLEMEN: In compliance with the city ordinance, I herewith present the annual report of the Superintendent for the year ending November 30, 1893.

The total amount of water pumped during the year was 2,234,863,924 gallons.

Total pumped by high service, 205,704,374 gallons.

Daily average of water pumped, 6,122,915 gallons.

Daily average by high service, 562,574 gallons.

Increase in total consumption over last year, $13\frac{9}{10}$ per cent.

Increase in high service, $15\frac{56}{100}$ per cent.

Total coal consumed, 3,210,500 pounds.

Daily average of coal consumed, 8,796 pounds.

Coal consumed per million gallons pumped, $1{,}436\frac{55}{100}$ pounds.

Water sold by meter and that used for watering the streets, for fountains and for flushing sewers, 566,628,350 gallons, leaving the amount for domestic use, 1,668,235,574 gallons.

Number of gallons daily for each inhabitant on whole amount pumped is $74\frac{50}{100}$ gallons.

Number of gallons daily for each inhabitant on amount for domestic use, private stables and hose, $55\frac{61}{100}$ gallons.

Total rain fall during the year was $40\frac{49}{100}$ inches.

Daily average height of Fresh Pond, 15.45 feet.

Highest water during the years was May 4, viz.: 17.04.

Lowest water during the year was November 3, viz.: 11.67.

Water was drawn from Stony Brook from the date of my last

report until May 6, when it was shut off, Fresh Pond having reached the unprecedented height of 17.04; the height of water in the Stony Brook basin being 82.50. The water was again let on May 9; the height of water at Fresh Pond being 16.69 and at Stony Brook basin 81.75. Again it was shut off July 8; Fresh Pond at height 16.89 and Stony Brook basin at 79.14. July 15, it was again let on; height of water in Fresh Pond 16.74 and at Stony Brook basin 77.21. September 10, it was shut off; height of water in Fresh Pond 16.30, at Stony Brook basin 64.68. Again it was let on November 1; the water in Fresh Pond being at height 11.67 and at Stony Brook basin 71.14.

Fresh Pond.

At the date of my last report the brick from the old ice houses were being dumped into the adjacent bay. When this work was completed, heavy stones were placed on the brick for rip-rapping the shore; finished December 26. On May 8, the work of filling this bay by cars was commenced and in August the roadway was opened to travel, completing a continuous drive around the pond, a distance of about three miles.

An arrangement was made with the Fitchburg Railroad Co., while they were laying their double track from Concord avenue to the engine house, to move over toward Tudor Park to gain space for the driveway at this point; which was thus widened to thirty-seven feet and rebuilt. At this date the R. R. Company is building a substantial fence seven feet high on the new line, very much improving the looks, and safety of driving.

The premises where the Hittinger ice-houses and other buildings stood, have been graded. The swamp between the Black and Hittinger estates has been filled to grade for a width of two hundred feet the entire length of the estates.

The filling-in on the west side of the basin, opposite Grove street, has been completed and at this date the Gay Nook is being filled to grade, about one-half of the surface having been covered. In January, while the nook was frozen, a roadway was built across the southern end separating this nook from the Lily Pond. The freezing weather facilitated the work as teams could work on the ice, also prevented the mud from being

forced into the pond in any considerable amount. This road was also of great importance for filling the nook by cars.

Ninety thousand, nine hundred and sixty-five cubic yards of filling material has been hauled by cars during the year, divided as follows; 13,905 cubic yards on Boston Ice Company estate, 33,335 cubic yards on the Hittinger estate, 19,365 cubic yards on the west side of the basin opposite Grove street, and 24,360 cubic yards in the Gay Nook. All the new graded territory, where completed, has been covered with loam and sown down to grass. Twenty-six thousand three hundred thirty-seven cubic yards of loam has been delivered by the contractors, Messrs. Doody, Curley & Callaghan, who are to be commended for their push and energy in delivering the material on new and soft filling.

The roadway around the basin has been kept in good condition. Now that it is completed, all repairs should be made with screened stones and the avenue kept sprinkled. Only slight repairs have been needed on the rip-rapping of the shores. All the grass on the parks was sold standing except what was needed for this department.

If the Fitchburg Railroad Company are to continue using the old ice tracks that formerly served the Boston Ice Company, it will be necessary to have their location fenced abutting the park as teams removing wood and other material from the cars are constantly drawing over the bounds and workmen making paths on the park which is very objectionable.

I would recommend that a large number of trees be set out the coming season in various places on the new graded territory.

The dwelling house, stable and tool house on Concord avenue are in good condition. No repairs have been needed except papering the hall and three rooms in the dwelling house.

Pumping Station and Surroundings.

Early in the season it was decided to move the house and stable from Fresh Pond Grove to Worthington street opposite the engine house and fit them up for use of the chief engineer, but on a thorough examination of the house preparatory to moving, it was found in such condition that it was deemed

impracticable to make any outlay upon them. The house and stable were advertised and sold at auction and a contract made with J. H. Keenan for a new house and stable to be placed on the same location intended for the old buildings. At this date the new buildings are nearly completed and will be occupied by the engineer, Mr. E. C. Brooks, by the middle of December. The lot opposite the engine house on which the new buildings are located extends from Lake View to Lexington avenue, a distance of 305 feet and was four feet below grade. One-half the lot, where the new building is located, has been filled to grade and covered with loam.

I would recommend that the old house, about to be vacated by the engineer, be moved on to the lot at the corner of Lake View avenue and Vassal lane and divided into two tenements for the use of the firemen, as it is very essential that they live in close proximity to the engine house where they can be readily called.

The roof, gutters and conductors on the engine house have been repaired where needed. A new water closet has been put in, as the old one was constantly getting out of repair. A stairway has been built through the centre floor of the engine room in order to more readily reach the high service pumps. The roof of the engine house should be recovered the coming season either with tin or copper, and a new iron balustrade should take the place of the old wooden one which is badly decayed. All the buildings will need painting the coming season. The grounds should be re-graded to correspond to the street, and the new fence continued around the entire lot. The grass has been kept cut and walks graded.

Reservior.

No repairs have been needed in or around the basins or stand-pipe. The banks and walks have received necessary care. The stand-pipe should be painted the coming season.

Stony Brook Basin and Surroundings

The daily average number of gallons by the month flowing over the waste-way was as follows:—

December,	1892	1,617,647 gals.	
January,	1893	No overflow.	
February,	"	18,502,675 gals.	
March,	"	52,547,922 "	
April,	"	33,738,718 "	
May,	"	37,921,490 "	
June,	"	1,471,538 "	
July,	1893	No overflow.	
August,	"	No overflow.	
September,	"	No overflow.	
October,	"	No overflow.	
November,	"	No overflow.	

Total amount wasted 4,427,463,762 gallons.

Several important improvements have been made at these works. A large oval screen has been placed over the intake port to prevent leaves from floating into the gate house and clogging the fine screens. Iron brackets have been placed on the outside of the gate house, at overflow line, to support a staging for the workmen when cleaning the screen. Much trouble has been experienced heretofore from leaves collecting on the screens and stopping the flow of water; and in two instances the screens have been broken by the pressure on them.

A V-shaped ice breaker has been built in the lower basin, what is known as Roberts' Pond, near the highway bridge above Roberts' dam, to prevent floating ice from packing against the bridge and dam. This barrier was built by driving oak piles and capping the same with heavy hard pine timber.

The roof to the dwelling house has been raised and another story put on, also the stable has been enlarged by adding 16 feet to its length, very much improving the appearance and convenience of both buildings. All of the surroundings are kept in a very neat and orderly manner by the keeper, Mr. Silas Baxter.

Stony Brook Pipe Line.

There have been no leaks on this line during the year. All of the gates and blow-offs have been inspected and their locations marked.

Pipe Yard.

All of the buildings are in good repair, but will need painting the coming season.

Pipe Bridges.

The pipe bridges at Porter's Station and Mt. Auburn Station are in good condition.

The covering or house over the Brookline street pipe bridge

is in a shaky condition on account of the ice piling up against it when the tide is going out, being protected by the highway bridge on the flood tide. Extreme high tides flow to the top and over the bridge, causing the bottom of the studding of the house to rot, being alternately wet and dry. This bridge covering will need quite extensive repairs in the near future.

Main Pipe.

Eighteen thousand three hundred eighty feet of various sizes of main pipes have been laid for new extensions; 11,008 feet for renewals and 14,233 feet of various sizes have been laid for new supplies, making a total length of 8 $\frac{3}{10}$ miles of trenching and back-filling.

The engineer's report, statements in detail of main pipe and supplies laid, of gates and hydrants set, location of fountains, stand-pipes for street watering, check-valves, number, name and location of all hydrants, location and size of meters, with inventory of stock and tools accompany this report.

All of which are respectfully submitted.

HIRAM NEVONS,
Superintendent.

Main Pipe.

Main pipes have been laid in the following streets: 6 ft. of 6 in. and 488$\frac{1}{2}$ ft. of 8 in. in Allston street (renewal); 3 ft. of 4 in. and 10 ft. of 6 in. in Amory street; 21 ft. of 6 in. and 2,125 ft. of 8 in. in Auburn street (renewal); 799 ft. of 6 in. in Berkeley street (renewal); 3 ft. of 1$\frac{1}{2}$ in. and 411 ft. of 4 in. in Bismarck street; 364 ft. of 6 in. in Brookford street; 118 ft. of 6 in. in Carver street; 20 ft. of 6 in. and 1060 ft. of 10 in. in Cedar street; 45 ft. of 6 in. in Chestnut street; 17 ft. of 6 in. in Church street; 303 ft. of 6 in. in Clay street; 72 ft. of 6 in. in Clifton street; 7 ft. of 6 in. in Columbia street; 132 ft. of 4 in. in Cushing avenue; 155 ft. of 4 in. in Davenport street; 496 ft. of 6 in. in Decatur street (renewal); 3 ft. of 1$\frac{1}{2}$ in. and 267 ft. of 8 in. in Fayerweather street; 15 ft. of 6 in. and 518$\frac{1}{2}$ ft. of 8 in. in Florence street (renewal); 1$\frac{1}{2}$ ft. of 1$\frac{1}{2}$ in. in Foster street; 2 ft. of 4 in. in Frost street; 93 ft. of 6 in. and

2 ft. of 10 in. in Garden street; 15 ft. of 6 in. in Gardner street; 253 ft. of 6 in. in Gladstone street; 84 ft. of 4 in. in Hall place; 400 ft. of 6 in. and 1,870 ft. of 8 in. in Hampshire street (renewal); 33 ft. of 4 in. and 122 ft. of 6 in. in Hancock street; 129 ft. of 6 in. in Harvey street; 20 ft. of 4 in. in Hastings street; 390 ft. of 4 in. in Holyoke street (renewal); 3 ft. of 1½ in. and 219 ft. of 6 in. in Hovey avenue; 1,014 ft. of 6 in. (renewal) and 70 ft. of 8 in. in Irving street; 1,384½ ft. of 6 in. in Jackson street; 42 ft. of 2 in. and 1,519 ft. of 6 in. in Lake View avenue (renewal); 144 ft. of 6 in. in Lexington avenue; 38 ft. of 4 in. in Linden street; 251 ft. of 6 in. in Line street; 14 ft. of 4 in. in Magazine street; 2,780 ft. of 12 in. and 245 ft. of 6 in. in Main street; 18 ft. of 1½ in. in Maynard place; 3 ft. of 1½ in. and 111 ft. of 6 in. in Museum street; 7 ft. of 6 in. in Norfolk street; 1,615 ft. of 10 in. and 89 ft. of 6 in. in North avenue; 3 ft. of 1½ in. and 254½ ft. of 6 in. in Onlney avenue; 13 ft. of 6 in. in Orrin street; 1,446 ft. of 6 in. in Oxford street (650 ft. of which were renewal); 677 ft. of 8 in. in Pearl street; 513½ ft. of 6 in. in Phillips place (renewal); 305 ft. of 8 in. in Pleasant street (renewal); 378 ft. of 12 in. and 15 ft. of 6 in. in Portland street; 1,180 ft. of 6 in. in Prospect street; 72 ft. of 4 in. in Railroad street; 42½ ft. of 1¼ in. in Reed court; 3 ft. of 1½ in. and 36½ ft. of 4 in. in Remington street; 506 ft. of 6 in. in Roseland street (renewal); 157 ft. of 4 in. in Rutland street; 3 ft. of 1½ in., 273 ft. of 4 in. and 14 ft. of 6 in. in Saginaw avenue; 3 ft. of 1½ in. and 108½ ft. of 6 in. in Scott street; 15 ft. of ¾ in. and 21 ft. of 6 in. in Spruce street; 204 ft. of 2 in. in Sullivan court; 2 ft. of 4 in. in Summer street; 291 ft. of 6 in. in Tannery street; 8 ft. of 4 in. and 426 ft. of 6 in. in Trowbridge street; 519½ ft. of 8 in. in Tufts street; 3 ft. of 1½ in. and 238 ft. of 4 in. in Vineyard street; 129 ft. of 2 in. in court off Walden street; 3 ft. of 1½ in. and 473 ft. of 6 in. in Washburne avenue; 116 ft. of 2 in. in Washington court; 3 ft. of 1½ in. and 172 ft. of 4 in. in Westerly avenue; 3 ft. of 1½ in. and 284½ ft. of 6 in. in West Lambert avenue.

On account of the Metropolitan sewer the main pipes have been raised in the following streets: Green, Sidney and Brookline streets.

At the corner of Cambridge and Warren streets, about

twenty-eight feet of new 20-in. iron pipe were laid in place of cement at the Metropolitan Sewer Construction Company's request.

For the accommodation of the city sewer department the main pipes have been offset in the following streets: Garden at Donnell, Moore at Washington, Cambridge (Doyle's), Columbia and Front streets.

Total length of cast iron pipes laid during the year 1893, is 28,784½ feet, equal to 5.45 miles, the weight of metal being 566.96 tons. The different sizes of pipes laid, their lengths and weights, are as follows:—

Size.	Length in feet.	Weight in tons.
12 inch	3,158	121.25
10 "	2,677	78.88
8 "	6,840½	149.63
6 "	13,882½	198.32
4 "	2,226½	18.88

New Supplies.

Three hundred and eighty-nine new supplies have been laid, making the total number laid to date, 11,769.

Thirty-seven supplies have been renewed; of these seven have been enlarged; seventeen have been furnished with sidewalk shutoffs; two have been extended.

Supplies in the following streets have been connected to the new mains: Allston, Auburn, Berkeley, Cedar, Decatur, Florence, Hampshire, Holyoke, Irving, Magazine, Main, Oxford, Pearl, Pleasant, Roseland, Tufts streets, North avenue and Phillips place.

On account of change in grade of street, the supplies in Sparks and Dublin streets have been lowered to prevent their freezing.

For the accommodation of the construction of the Metropolitan Sewer, the supplies in Green and Sidney streets have been raised. The supplies in Warren street and in Brighton and Eliot streets have been offset to allow buckets to work.

Leakage.

Seven hundred and eighty-five leaks have been stopped; namely, three on 3 inch main, twelve on 4 inch main, five on 6 inch main, three on 8 inch main, one on 12 inch main, one on 20 inch main, one on 24 inch main, sixteen on supplies on premises, eighty-three on supplies in street, seven on basins, fifty-nine on pipes, fifty-five on tanks, three on stop and waste valves, two hundred and sixty-three on water-closets, and two hundred and seventy-three on faucets; of these six hundred and sixty were reported by inspectors, found while canvassing, and repaired by owner or occupant.

A general inspection of pipes and fixtures has been made.

Drinking Fountains.

A new drinking fountain has been set in Spruce street.

There are twenty in use.

Standpipes for Street Watering.

Three new standpipes have been set during the year: one on Albany street, near Front street; one on Cushing street, near Belmont street; and one on Lake View avenue, at corner of Concord avenue.

The standpipe on Columbia street, near Austin street, has been relocated at the corner of Pine and Austin streets: the one at corner of Inman street and Broadway has been set near the corner of Broadway on Antrim street: the one at corner of Main and Hancock streets has been disconnected from the high service and is now located on Hancock street, near Main street.

Gates.

All the gates have been inspected and are in good condition.

Three 6 inch gates have been set in place of old 4 inch removed at Amory street corner of Broadway, and Prospect street corner of Broadway.

One old 4 inch gate at corner of Summer and Amory streets has been replaced by new 4 inch. One old 4 inch gate corner of Amory and Hampshire streets has been replaced by new 4 inch.

Boxes.

Eleven hydrant, two iron, and seven wooden boxes, making a total of twenty, have been set in place of worthless ones removed.

Check Valves.

One 4 inch check valve has been set in Linden street, corner of Harvard street.

High Service.

Thirty-eight feet of 4 inch pipe in Linden street to supply Claverley Hall, is the only extension of the high service system that has been made.

Meters.

The number of meters now in use is 299.

Hydrants.

Fifty-eight new post hydrants have been set during the year.

Old flush hydrants have been removed as follows:—Prospect and Hampshire streets, Lake View avenue opposite Pumping Station, Main and Harvard streets, Norfolk and Hampshire streets, Prospect and Gardner streets, Portland and Harvard streets, Church street opposite Palmer street, Phillips place and Berkeley street, and Magazine and Auburn streets.

Old flush hydrants have been removed and new post hydrants set in their places in the following locations:—Prospect street and Broadway, Amory street and Broadway, Hampshire and Columbia streets.

One Perkins hydrant has been removed from the corner of Hampshire and Amory streets.

The hydrant on Sargent street has been re-located on account of its being in front of a resident's driveway.

Three post hydrants, located as follows:—Harvard and Main streets, Portland street opposite engine house, and Prison Point street, broken by teams, have been replaced by new ones.

Hydrants located at Albany and Portland streets, Albany and Front streets, and Portland and Hampshire streets were temporarily removed for the accommodation of the Metropolitan sewer.

One Perkins hydrant broken by Somerville Fire Department has been removed and a new Chapman post set in its place.

The following hydrants are located on private premises:

Location.	Flush.	Post.
American Rubber Company		1
Boston & Maine Railroad Company	4	3
Boston Woven Hose Company		1
Houghton & Company	2	2
Maverick Oil Works		1
Mt. Auburn Corporation	1	
North & Company		1
Page, George G., & Company		1
Street Department, Brewer Street		1
Street Department, Tremont Street		1
West End Street Railway Company		1

List of Hydrants.—*Ward One.*

STREET.	LOCATION.	KIND.
Appleton	274 feet north from Highland st	Chapman.
Ash	corner Acacia st	Flush.
"	in city yard	Chapman.
Athens	corner Mt. Auburn st	Boston.
Auburn place	475 feet from Mt. Auburn st	Chapman.
Baldwin	corner Emmons place	Flush.
Banks	" Cowperthwaite st	"
"	" Flagg st	Chapman.
"	" Grant st	Flush.
"	" Mt. Auburn st	Boston.
"	54 feet west from Sand st	Chapman.
"	corner Stiles st	"
Berkeley	" Craigie st	"
"	" Phillips place	"
"	" Hastings st	"
Bow	opposite Arrow st	"
Boylston	corner Eliot st	Boston.
"	" Mt. Auburn st	"
"	" Murray st	Chapman.
"	174 feet north east from Murray st	"
"	192 " south from Eliot st	"
"	Corner Winthrop st	Boston.
Brattle	" Ash st	Flush.
"	" Boylston st	Perkins.
"	" Channing st	Flush.
"	" Fayerweather st	Chapman.
"	" Fresh Pond lane	"
"	" Hawthorne st	Perkins.
"	100 feet west from Hawthorne st	Flush.
"	Corner Hilliard st	"
"	" Lake View ave	Chapman.
"	154 feet west from Lexington ave	Flush.
"	Corner Lowell st	"
"	Opposite University Press	Wood.
"	Near corner Story st	Flush.
"	Corner Willard st	"
Broadway	Junction Cambridge st	"
"	Opposite College grounds	Perkins.
"	Corner Ellery st	Flush.
"	" Prescott st	"
"	" Quincy st	"
"	" Trowbridge st	"
Buckingham	" Concord ave	Perkins.
"	100 feet from Healey st	Flush.
Cambridge	Opposite Felton st	Boston.
"	Corner Holmes pl	Flush.
"	" Kirkland st	Perkins.
"	" Quincy st	Boston.
"	" Trowbridge st	Flush.
"	90 feet east from College gate	Perkins.
Channing	338 " from Brattle st	Chapman.
Chauncy	380 " from Garden st	Perkins.
"	Corner Langdon st	Flush.
Church	185 feet from Brattle st	Chapman.
Concord avenue	Opposite Bond st	Flush.
" "	" Craigie st	"
" "	Corner Follen st	Boston.
Coolidge avenue	455 feet from Mt. Auburn st	Perkins.
" "	215 " from Mt. Auburn gate	"
Craigie	318 " from Berkeley st	Flush.
Cushing	228 " from Belmont st	Boston.
"	Opposite Cushing ave	"
"	" Vineyard st	Chapman.
"	" Woodlawn ave	"
DeWolf	Corner Mt. Auburn st	Boston.
Divinity avenue	658 feet from Kirkland st	Chapman.

List of Hydrants.—*Ward One Continued.*

STREET.	LOCATION.	KIND.
Dunster	Near Harvard sq	Perkins.
"	Corner Mt. Auburn st	Boston.
"	" South st	Flush.
Eliot	240 feet from Boylston st	Boston.
"	Corner Winthrop st	"
Ellery	375 feet from Broadway	Flush.
"	Corner Cambridge st	Perkins.
"	" Harvard st	Chapman.
"	" Main st	Flush.
Elmwood avenue	Midway	Perkins.
Everett	Corner Oxford st	Flush.
"	391 feet from Oxford st.	"
Fayerweather	Opposite Reservoir st	Chapman.
Flagg	Corner Beaver st	"
Follen	At bend	Perkins.
"	318 feet from Concord ave	Chapman.
Foster	Corner Burns et	Perkins.
Francis avenue	314 feet from Kirkland st	Chapman.
Garden	Corner Chauney st	Boston.
"	" Wallace st	Flush.
Grant	" DeWolf st	"
Hammond	113 feet from Howland st	Chapman.
Harvard	Opposite Dunster st	"
"	" Linden st	Boston.
"	63 feet from Quincy st	"
"	Corner Remington st	Flush.
Harvard square	Opposite Charles River Bank	Boston.
Harvard College Grounds	near Thayer Hall	Perkins.
" " "	" Weld Hall	"
" " "	Opposite Gore Hall	Chapman.
" " "	near Jeffersonian Laboratory	"
" " "	" Law School	"
Hawthorne	Corner Acacia st	Perkins.
Highland	" Appleton st	Flush.
Holworthy	209 feet from Belmont st	Boston.
"	Opposite schoolhouse	"
Hovey avenue	215 feet from Cambridge st	Chapman.
Hubbard park		"
Huron	Corner Concord ave	Perkins.
"	" Fayerweather st	Chapman.
Irving	151 feet from Broadway	"
"	Corner Cambridge st	"
"	269 feet from Cambridge st	"
"	Opposite Farrar st	"
"	Corner Kirkland st	"
"	256 feet from Kirkland st	"
"	Belonging to Industrial School	"
Kirkland	Corner Baldwin st	Flush.
"	25 feet from Oxford st	"
"	Corner Quincy st	"
"	" Sumner st	"
"	" Trowbridge st	"
Lake View avenue	500 feet from Brattle st	"
" " "	337 " from Brattle st	Perkins.
" " "	Corner Concord ave	Chapman.
" " "	On the hill	Perkins.
" " "	Corner Huron st	"
" " "	286 feet from Worthington st. (south)	"
" " "	252 " from Worthington st. (north)	Chapman.
Langdon	241 " from Chauney st	Boston.
Larch	92 " from Brattle st	Chapman.
Lexington avenue	500 " from Brattle st	"
" "	925 " from Brattle st	"
" "	Corner Huron st	"
" "	324 feet from Huron st. (south)	"
" "	244 " from Worthington st	"
Locust	Corner Holworthy st	Boston.
Magnolia avenue	" Myrtle ave	Chapman.
Main	150 feet west from Remington st	Flush.
"	Corner Trowbridge st	"
Mason	" Garden st	"
McDonald	283 feet from Mt. Auburn st	Chapman.

List of Hydrants.—*Ward One Continued.*

STREET.	LOCATION.	KIND.
Mill	Corner Holyoke st	Perkins.
Mt. Auburn	Opposite Athens st	Flush.
"	Corner Auburn st	Chapman.
"	Opposite Bath st	Perkins.
"	Corner Bow st	Flush.
"	Opposite Brewer st	Perkins.
"	Corner Channing st	"
"	192 feet east from Coolidge ave	"
"	Corner Dunster st	Flush.
"	" Elmwoood ave	Perkins.
"	In Eliot sq	Boston.
"	Corner Hilliard st	"
"	" Holyoke st	"
"	" Linden st	"
"	" Lowell st	"
"	" McDonald st	Chapman.
"	139 feet from Mt. Auburn Bridge	Boston.
"	Corner Sparks st	Perkins.
"	" Story st	Boston.
"	" Willard st	Perkins.
Murray	87 feet from the bend	Chapman.
"	Corner Lyman st	"
Myrtle ave	234 feet from Kirkland st	"
North avenue	Corner Chauncy st	Flush.
" "	" Church st	"
" "	" Jarvis st	"
" "	68 feet from Kirkland st	Boston.
" "	49 " from Garden st. (south)	"
" "	Opposite Wendell st	Perkins.
Otter	Corner DeWolf st	Flush.
Oxford	" Jarvis st	Chapman.
"	291 feet from Jarvis st	"
"	306 " from Kirkland st	"
"	604 " from Kirkland st	"
"	Corner Mellen st	Flush.
Parker	113 feet west from Healey st	Chapman.
Phillips place	117 " from Mason st	"
Plympton	Corner Mill st	"
"	" Mt. Auburn st	"
Prescott	" Harvard st	Flush.
"	469 feet from Harvard st	Perkins.
Putnam avenue	Corner Flagg st	Boston.
" "	74 feet northwest from Griggs st	"
" "	nearly opposite Magee st	"
" "	Between Main and Mt. Auburn sts	Chapman.
" "	Corner Sands st	Boston.
Quiney	449 feet from Broadway (south)	Perkins.
Riedesel avenue	Near corner Brattle st	Chapman.
Reservoir	Corner Highland st	"
Scott	300 feet from Farrar st	"
South	Corner Dunster st	Perkins.
Sparks	" Brattle st	Chapman.
"	" Foster st	Perkins
"	27 feet from Highland st	Wood.
"	Corner Vassal lane	Perkins
Trowbridge	" Broadway	Flush.
"	" Cambridge st	"
"	316 feet from Kirkland st	Chapman.
"	257 " from Main st	Boston.
Vassal lane	Corner Appleton st	Chapman.
Wallace	280 feet from Shepard st	Flush.
Ware	Corner Broadway	"
Waterhouse	Opposite Concord ave	Boston.
"	" Follen st	"
Wendell	Near corner Carver st	"
"	403 feet from North ave	"
Willis court	In front of No 8	Chapman.
Worthington	Near Pumping Station	Boston.
Willard	Corner Foster st	Perkins.

List of Hydrants—*Ward Two.*

STREETS.	LOCATION.	KIND.
Amory	Corner Summer st	Coffin.
"	" Broadway	Chapman.
Antrim	" Broadway	Flush.
"	375 feet from Broadway	Chapman.
"	678 " from Cambridge st	Boston.
"	373 " from Cambridge st	"
Austin	Corner Essex st	"
"	" Prospect st	"
"	" Temple st	"
Bigelow	327 feet from Main st	Flush.
Brewery	Corner Hastings st	Boston.
Bristol	" Portland st	"
Broadway	" Brewery st	"
"	131 feet east from Brewery st	"
"	Near Broadway House	Flush.
"	Corner Boardman st	"
"	" Clark st	Boston.
"	" Dana st	Flush.
"	" Fayette st	"
"	" Elm st	"
"	" Hancock st	"
"	" Highland ave	"
"	" Norfolk st	"
"	" Pelham st	"
"	153 feet east from R. R. crossing	Perkins.
"	Corner Pioneer st	Boston.
"	196 feet west from Sixth st	"
"	Corner Third st	"
Cambridge	" Elm st	"
"	Opposite Fayette st	Flush.
"	Corner Harding st	"
"	183 feet east from Harding st	Boston.
"	Corner Leonard ave	"
"	Opposite Maple ave	Flush.
"	Corner Marion st	Boston.
"	213 feet west from Prospect st	Chapman.
"	Corner Springfield st	Flush.
"	" Tremont st	"
"	" Willow st	"
"	" Winsor st	Boston.
Centre	319 feet west from Hancock st	Flush.
Clinton	Corner Harvard st	"
"	189 feet north from Main st	Chapman.
"	489 " north from Main st	Boston.
Columbia	Corner Broadway	Chapman
"	" Hampshire st	"
"	" Harvard st	Flush.
"	" Lincoln st	"
"	" Market st	"
"	Junction Cambridge st. and Webster ave	Boston.
Dana	393 feet from Cambridge st	"
"	Corner Chatham st	"
Davis	" Broadway	Flush.
"	" Broadway	Boston.
Ellsworth avenue	" Broadway	Chapman.
" "	Near Greenough ave	"
" "	321 feet from Greenough ave	"
Elm	Opposite Lincoln st	Perkins.
"	Corner Market st	Flush.
"	" Webster ave	Chapman.
Essex	166 feet northwest from Ashburton pl	"
Fayette	468 feet from Broadway	"
First	Corner Main st	"
Hampshire	" Amory st	Perkins.
"	" Broadway	Chapman.
"	" Bristol st	"
"	North from Cambridge st	Boston.
"	Corner Clark st	Chapman
"	" Elm st	"
"	49 feet east from Prospect st	"
"	Corner Portland st	Boston.
"	In city stables' yard	"

List of Hydrants—*Ward Two Continued.*

STREET.	LOCATION.	KIND.
Harvard	Corner Bigelow st	Boston
"	" Brewery st	Flush.
"	" Cherry st	Boston.
"	" Clark st	Flush.
"	363 feet east from Dana st	Chapman.
"	Corner Dana st	Flush.
"	Opposite Davis st	Boston.
"	" Elm st	"
"	Corner Essex st	"
"	" Hancock st	Flush.
"	" Lee st	Boston.
"	" Moore st	Flush.
"	" Munson st	Boston.
"	" Norfolk st	Flush.
"	" Portland st	"
"	" Prospect st	Boston.
"	274 feet from Prospect st	Perkins.
"	167 " east from R. R. crossing	Boston.
"	Corner Winsor st	"
Highland avenue	230 feet south from Greenough ave	Chapman.
Houghton	Corner Bolton st. (Somerville)	"
Hunting	365 feet from Cambridge st	Flush.
Inman	130 " north from Austin st	"
"	Corner Broadway	"
"	" Hampshire st	Chapman.
"	" Harvard st	Flush.
"	335 feet sou h from Hampshire st	Chapman.
"	Opposite Summer st	"
"	234 feet north from Summer st	"
Jefferson	Corner Harding st	Flush.
"	Opposite Marion st	Chapman.
"	Corner Warren st	Boston.
Lee	333 feet north from Main st	"
Leonard avenue	305 feet from Cambridge st	Chapman.
Line	213 " from Cambridge st	"
"	107 " from Kirkland st	"
Main	Opposite Bay st	Flush.
"	Corner Bigelow st	"
"	" Brewery st	Chapman.
"	Opposite Broadway	"
"	194 feet east from Broadway	"
"	417 " east from Broadway	Coffin.
"	Corner Essex st	Chapman.
"	89 feet west from First st	Flush.
"	392 " west from First st	"
"	Corner Hancock st	"
"	" Lee st	"
"	Opposite Pearl st	Chapman.
"	Corner Pelham st	Perkins.
"	81 feet west from Pioneer st	Chapman.
"	Corner Pioneer st	Boston.
"	Opposite Pleasant st	Flush.
"	408 feet east from R. R. crossing	Chapman.
"	100 " east from R. R. crossing	"
"	167 " east from Sixth st	"
"	Corner Third st	Perkins.
"	161 feet west from Third st	Chapman.
Maple avenue	514 " from Broadway	"
Market	Corner Union st	Flush.
Mechanics' square		Chapman.
Moore	Opposite Hastings st	Flush.
Norfolk	334 feet north east from Broadway	Perkins.
"	Corner Hampshire st	Chapman.
"	Opposite Washington st	Boston.
"	Corner Webster av	Chapman.
"	" Worcester st	Flush.
"	" Cambridge st	
Oak	Opposite Bolton st (Somerville)	Perkins.
"	266 feet from Cambridge st	Flush.
Pine	Corner Harvard st	"
Plymouth	" Berkshire st	"
Portland	" Cambridge st	Chapman.
"	269 feet from Cambridge st	"

List of Hydrants—*Ward Two Continued.*

STREET.	LOCATION.	KIND.
Portland	210 feet north east from Hampshire st	Boston.
"	Corner Harvard	Chapman.
"	" Hastings st	"
"	Opposite Thorndike st	"
"	65 feet from Vandine st	Boston.
"	470 " from Vandine st	Chapman.
Porter	Corner Bedford st	Boston.
"	" Harding st	"
Prospect	259 feet north east from Austin st	Chapman.
"	Corner Broadway	"
"	308 feet north east from Broadway	"
"	Corner Cambridge st	Coffin.
"	" Gardner st	Chapman.
"	297 feet north east from Gardner st	"
"	Corner Hampshire st	"
"	244 feet south west from Harvard st	"
"	259 " north east from Harvard st	"
"	61 " from Main st	"
"	210 " south east from Oak st	Perkins.
"	Corner Webster av	"
Seekle	" Webster av	"
Sixth	199 feet from Harvard st	Chapman.
South	Corner Earl st	Perkins.
Tremont	" Broadway	"
"	309 feet north east from Broadway	"
"	412 " north east from Cambridge st	Chapman.
"	33 " north east from Carlisle st	"
"	Opposite Gardner st	Perkins.
"	Corner Hampshire st	"
"	Near Webster ave	Chapman.
Union	Corner Hampshire st	"
"	" Lincoln st	"
"	" Union pl	"
Ward	" Horace st. (Somerville)	Flush.
Warren	" Jefferson st	Boston.
Washington	" Clark st	Flush.
"	" Munson st	Chapman.
"	" Windsor st	Flush.
Webster avenue	" Bristol st	"
" "	Opposite Hampshire st	Chapman.
" "	Corner Windsor st	Flush.
" "	" Cambridge st	Boston.
" "	" Plymouth st	Flush.
West	79 feet from Derby lane	Perkins.
Windsor	Corner Broadway	Boston.
"	" Hampshire st	Flush.
"	" Lincoln st	"

List of Hydrants—*Ward Three.*

STREET.	LOCATION.	KIND.
Binney	Near R. R. crossing	Boston.
"	Corner Ninth st	Perkins.
"	" Third st	Chapman.
Bridge	361 feet east from East st	Boston.
"	Corner East st	"
"	Opposite Fourth st	"
"	150 feet east from Fourth st	"
"	Opposite Gore st	"
"	73 feet east from Prison Point st	"
"	344 " west from Prison Point st. (south side)	Perkins.
"	390 " west from Prison Point st. (north side)	Flush.
"	245 " east from Prison Point st	Boston.
"	Corner Prison Point st	Chapman.
"	" Short st	"
"	" Short st	Flush.
"	" Water st	Boston.

List of Hydrants—*Ward Three Continued.*

STREET.	LOCATION.	KIND.
Cambridge	Junction Bridge st	Flush.
"	Corner Dailey's alley	Chapman.
"	Opposite First st	Flush.
"	170 feet east from Fourth st	Boston.
"	Corner Fourth st	"
"	" Lambert st	Flush.
"	" Sixth st	"
"	" Seventh st	Boston.
"	" Third st	Flush.
"	" Third st	Chapman.
"	Near B. & A. R. R. crossing	Boston.
Charles	Corner Fourth st	Flush.
"	" Third st	Perkins.
East	" North st	Boston.
Eighth	" Cambridge st	Flush.
"	" Thorndike st	Chapman.
Fifth	" Bent st	"
"	" Cambridge st	Flush.
"	" Charles st	"
"	" Gore st	"
"	" Otis st	Chapman.
"	" Rogers st	"
"	" Spring st	Flush.
First	" Charles sts	Chapman.
"	Opposite Otis st	Boston.
"	111 feet east from Thorndike st	"
"	Corner Vine st	Chapman.
Fourth	" Cambridge st	Flush.
"	" Thorndike st	Chapman.
"	" Winter st	Flush.
Gore	219 feet from Fifth st	Boston.
"	185 feet from Fourth st	Chapman.
"	Corner Fourth st	Flush.
"	" Lambert st	Boston.
"	" Seventh st	"
"	" Squire's ct	Chapman.
"	" Third st	Boston.
Munroe	" First st	Chapman.
"	" Third st	Boston.
Ninth	Near Bent st	Chapman.
"	Between Bent and Charles st	"
"	Opposite Thorndike st	"
"	Corner Otis st	"
"	Opposite Vine st	"
North	Corner East st	Flush.
"	Opposite Short st	Chapman.
"	103 feet from Water st	"
Otis	216 feet from Second st	"
"	Corner Seventh st	Flush.
"	" Third st	"
Potter	270 feet west from Sixth st	Boston.
"	In yard of American Rubber Co	Perkins.
Prison Point	54 feet from Bridge st. (east side)	Boston.
"	400 " from Bridge st. (east side)	Flush.
"	400 feet from Bridge st. (west side)	Perkins.
"	Near Boston Ice Co	Chapman.
"	272 feet north from B. & M. R. R. track	Perkins.
"	700 feet down passenger track	Flush.
Rogers	Corner Third st	Chapman.
Second	" Charles st	"
"	Near corner Cambridge st	"
"	Corner Otis st	"
"	" Thorndike st	Flush.
Sixth	Near corner Bent st	Chapman.
"	Near the bridge	"
"	Corner Binney st	"
"	" Charles st	Boston.
"	" Gore st	Flush.
"	Near corner Potter st	Chapman.
"	Corner Spring st	Boston.
Spring	" Fourth st	Chapman.
"	" Ninth st	"
"	264 feet from Ninth st	"

List of Hydrants--*Ward Three Continued.*

STREET.	LOCATION.	KIND.
Spring	Corner Second st	Flush.
"	" Third st	Chapman.
Third	144 feet from Charles st	Boston.
"	Near draw bridge	Perkins.
"	Corner Potter st	Flush.
"	" Vine st	"
"	" Winter st	Chapman.
Thorndike	121 feet from First st	Boston.
"	Corner Fifth st	Chapman.
"	" Second st	Boston.
"	" Sixth st	Chapman.
"	" Third st	"
Vine	" Fifth	Flush.
"	" Fourth st	Chapman.
"	" Sixth st	Flush.
Water	" Bridge st	"
"	29 feet from North st	"
Winter	Opposite Fifth st	Perkins.
"	Corner Fourth st	"

List of Hydrants—*Ward Four.*

STREET.	LOCATION.	KIND.
Albany	Corner Front st	Chapman.
"	" Main st	Boston.
"	244 feet north east from Osborn st	Chapman.
"	196 " north east from Portland st	"
"	Opposite Portland st	Boston.
Allston	241 feet west from Pearl st	Chapman.
"	Corner Sidney st	Flush.
"	" Waverly st	Perkins.
Andrew	" Somerset st	Boston.
"	" Fairmont st	"
Auburn	" Brookline st	Chapman.
"	" Magazine st	Boston.
"	" River st	Chapman.
Austin	" Douglass st	Boston.
"	" Norfolk st	"
Blackstone	141 feet from Western ave	Perkins.
"	Opposite Riverside Press	Chapman.
Blanche	Near corner Front st	"
Brookline	Corner Allston st	Flush.
"	" Chestnut st	"
"	" Decatur st	Perkins.
"	" Erie st	Flush.
"	" Franklin st	"
"	" Green st	Boston.
"	" Hamilton st	Flush.
"	Near corner Henry st	Boston.
"	283 feet south-west from Henry st	Chapman.
"	Corner Lopez st	Perkins.
"	" Putnam ave	Flush.
"	" Valentine st	"
"	" Watson st	Perkins.
Central square		Chapman.
Cherry	Opposite Eaton st	Flush.
Chestnut	Corner Pearl st	Chapman.
Columbia	" Austin st	Flush.
"	" Washington st	"
Cottage	" Pearl st	Perkins.
Decatur	274 feet from Brookline st	Chapman.
Eaton	Corner Pine st	Perkins.
Erie	234 feet from Pearl st	Chapman.
"	Corner Pearl st	Perkins.
Florence	41 feet west from Gordon ct	Chapman.

List of Hydrants—*Ward Four Continued.*

STREET.	LOCATION.	KIND.
Franklin	345 feet west from Bay st	Chapman.
"	Corner Bay st	Perkins.
"	" Hancock st	Chapman.
"	" Magazine st	Flush.
"	" Pearl st	Chapman.
"	Near corner Putnam ave	Boston.
"	Corner Pleasant st	Flush.
"	" Pleasant st	Chapman.
"	" Sidney st	Flush.
"	233 feet north west from Sidney st	Coffin
"	Corner Soden st	Chapman.
Front	189 feet east from Blanche st	"
Granite	Corner Pearl st	"
Green	" Bay st	Boston.
"	" Hancock st	"
"	300 feet from Hancock st	"
"	Corner Pleasant st	"
"	" Putnam ave	Flush.
"	Opposite Vernon st	"
"	Corner Western ave	Boston.
Grigg	" Putnam ave	Flush.
Hamilton	" Pearl st	Chapman.
Henry	38 feet west from Hastings sq	Coffin.
"	Corner Sidney street	Chapman.
Howard	66 feet from Grigg st	"
"	130 " south from Kinnaird st	"
Kinnaird	Corner Bay st	Perkins.
"	Near corner Hancock st	Chapman.
"	358 feet east from Hancock st	"
Magazine	Corner Chestnut st	"
"	" Cottage st	Flush.
"	Opposite Allston st	Perkins.
"	Corner Green st	Boston.
"	28 feet north from Hamilton st	Flush.
"	Corner Park st	"
"	" Putnam ave	"
"	Opposite Tufts st	Chapman.
"	Corner Upton st	Flush.
"	" Warland st	"
Main	Junction Austin st	Chapman.
"	Corner Brewery st	"
"	" Brookline st	"
"	Opposite Cherry st	"
"	172 feet east from Columbia st	"
"	139 " east from Douglas st	"
"	Junction Front st	"
"	Corner Harrison st	Boston.
"	Opposite Inman st	Chapman.
"	Corner Norfolk st	"
"	" Pearl st	"
"	Opposite Pleasant st	Flush.
"	" Temple st	Chapman.
"	Corner Windsor st	"
"	62 feet east from Windsor	"
Osborne	Corner Main st	Boston.
"	" State st	"
Pacific	234 feet from R. R. crossing	Flush.
"	Corner Sidney st	"
Park	" Pleasant st	"
Pearl	" Allston st	Perkins.
"	" Auburn st	Chapman.
"	Opposite Decatur st	Perkins.
"	Corner Glenwood st	"
"	" Green st	Boston.
"	" Lake st	Chapman.
Pleasant	" Chestnut st	"
"	" Florence st	Perkins.
"	" Pleasant st	"
"	" Upton st	Flush.
Portland	" Main st	Boston.
Prince	" Pleasant st	Flush.
Putnam avenue	" Pearl st	Chapman.

List of Hydrants—*Ward Four Continued.*

STREET.	LOCATION.	KIND.
Putnam avenue	Corner Pleasant st	Coffin.
" "	408 feet south east from River st	"
" "	294 feet north west from River st	Boston.
" "	Corner Sidney st	Flush.
" "	" Waverly st	Perkins.
" "	" Walnut ct	Boston.
River	219 feet south east from Western ave	"
"	Corner Blackstone st	Flush.
"	Opposite Cottage st	"
"	" Fairmont st	Flush.
"	Corner Franklin st	"
"	Opposite Laurel st	"
"	Corner Putnam ave	Boston.
Salem	" Watson st	Perkins.
School	" Clark st	Boston.
"	27 feet west from Clark st	Flush.
"	Corner Moore	Boston.
"	" Portland st	"
Sidney	" Auburn st	Chapman.
"	" Chestnut st	Flush.
"	" Front st	Boston.
"	" Green st	"
Somerset	" Pleasant st	Flush.
State	177 feet east from Windsor st	Boston.
"	Opposite Village st	"
Tufts	Corner Pearl st	Chapman.
"	197 feet west from Magazine st	"
Vernon	Corner Green st	Boston.
Washington	" Brewery st	"
"	" Clark st	Flush.
"	" Moore st	Boston.
"	" Portland st	"
Waverly	" Talbot st	Flush.
Western avenue	Between Dodge and Hews sts	Chapman.
" "	Corner Howard st	Flush.
" "	" Kinnaird st	"
" "	" Jay st	"
" "	" Putnam ave	"
" "	Opposite Sodon st	Boston.
William	154 feet west from Magazine st	"
Winsor	Corner Front st	Chapman.

List of Hydrants—*Ward Five.*

STREET.	LOCATION.	KIND.
Arlington	145 feet east from Walnut ave	Perkins.
Avon Hill	Corner Bellevue ave	Chapman.
" "	" Hillside ave	Perkins.
Bates	Midway	Chapman.
Beech	Corner North ave	Flush.
"	20 feet from Orchard st	"
Bellevue avenue	Corner Raymond st	Chapman.
Blake	" North ave	Boston.
"	" Orchard st	Chapman.
Bolton	" Dublin st	Flush.
Bowdoin	" Linnæan st	Chapman.
Brookford	319 feet from North ave	"
Cameron	179 " from B. & M. R. R. crossing	"
Cedar	207 " from Dudley st	"
"	Opposite Harvey st	"
"	" Norris st	Flush.
"	Corner Norris st	Chapman.
"	" Spruce st	Flush.
"	" Dudley st	Chapman.
Chester	" North ave	"
"	Opposite George st	"

List of Hydrants—*Ward Five Continued.*

STREET.	LOCATION.	KIND.
Clay	Near Dudley st	Chapman.
"	381 feet from Spruce st	"
"	Corner Spruce st	Flush.
Cogswell avenue	" Mead st	"
Concord avenue	90 feet south east from Donnell st	Boston.
"	Corner Madison st	Flush.
Creighton	443 feet from North ave	Chapman.
Crescent	Corner Sacramento st	Boston.
Crescent avenue	" Raymond st	Flush.
"	220 feet from Raymond st	Perkins.
"	420 " from Walden st	Chapman.
"	Corner Walden st	"
Donnell	" Garden st	Flush.
Dover	" North ave	Chapman.
Dublin	" Garden st court	Flush.
"	Near railroad track	Boston.
"	512 feet from Spruce st	Flush.
"	Near corner Walden st	Chapman.
"	78 feet south east from Wicklow st	"
Fairfield	310 feet from Spruce st	Flush.
Frost	Corner Forest st	Boston.
Garden	Opposite Bond st	Flush.
Garfield	Midway	Chapman.
"	Corner Oxford st	Boston.
"	" North ave	Coffin.
Gladstone	" Bismark st	Chapman.
Gray	" Norfolk st	"
Harris	" Frost st	Perkins.
Harvey	Opposite Montgomery	Flush.
Haskell	Corner North ave	Chapman.
"	" Spruce st	"
Hollis	288 feet from Spruce st	Flush.
Hubbard avenue	400 " from Walden st	Chapman.
" "	Corner Raymond st	"
Humboldt	" Lancaster st	Boston.
Hurlbut	" Linnæan st	Chapman.
Jackson	" Spruce st	Perkins.
"	350 feet from Spruce st	Chapman.
Lambert	Corner North ave	Perkins.
"	Near corner Raymond st	Chapman.
"	Corner Walnut ave	Boston.
Lancaster	" Agassiz st	Chapman.
Linnæan	" Avon st	Flush.
"	" Bowdoin st	"
"	" Raymond st	"
Locke	99 feet from Frank st	Chapman.
Martin	Corner Hurlbut st	"
Mason avenue	160 feet from North ave	"
Middlesex	78 feet from Van Norden st	"
"	Opposite Wilson ave	"
Montgomery	Corner Dudley st	Perkins.
"	Near corner George st	"
Mt. Vernon	244 feet from Lambert ave	Chapman.
Newman	169 feet from North ave	"
Norris	Midway	Wood.
North avenue	Corner Allen st	Flush.
" "	" Arlington st	"
" "	" Cedar st	"
" "	" Clarendon ave	Chapman.
" "	128 feet west from Dudley st	Flush.
" "	Corner Cogswell ave	"
" "	Near Fitchburg R. R, (north west)	"
" "	Corner Frank st	Boston.
" "	" Linnæan st	Chapman.
" "	Opposite Linnæan st	Flush.
" "	176 feet from Lancaster st	Chapman.
" "	Opposite Mason ave	"
" "	Corner Mt. Vernon st	Perkins.
" "	Opposite Newman st	Flush.
" "	226 feet west from B. & M. R. R. crossing	Chapman.
" "	Corner Rice st	"
" "	" Sacramento st	Flush.
" "	" Tannery st	Chapman.

List of Hydrants—*Ward Five Continued.*

STREET.	LOCATION.	KIND.
North avenue	Opposite Tannery st	Flush.
" "	Corner Washburne ave	Chapman.
" "	68 feet from Washburne ave	Boston.
Orchard	Corner Davenport st	"
"	Opposite Tenney st	Flush.
Oxford	Corner Frost st	"
"	" Sacramento st	"
Pemberton	" Fairfield	Perkins.
"	317 feet from Spruce st	"
Railroad	Corner Middlesex st	Chapman.
Raymond	258 feet from Bates st	Flush.
"	Corner Brendon st	"
Reed	255 feet from Harvey st	"
"	Opposite schoolhouse	"
Rice	489 feet from North ave	"
Richdale avenue	296 " from Lambert ave	Chapman.
Roseland	Corner Frost st	Flush.
"	200 feet from North ave	Chapman.
Russell	283 " from North ave	"
Saginaw avenue	At bend	"
Sargent	360 feet from Railroad st	"
Shepard	Corner Avon st	Flush.
Somerville avenue	" White st	Boston.
Spruce	Opposite Cedar st	Chapman.
"	Corner Clifton st	Flush.
"	Opposite Groveland st	"
"	Corner Hollis st	"
"	43 feet from Middlesex st	Chapman.
"	Corner Montgomery st	Flush.
"	" Corner Reed st	"
Tannery	At almshouse	Perkins.
"	At city scales	"
"	Near North ave	"
Tuttle	385 feet from Wyeth st	Flush.
Van Norden	326 " from Middlesex st	Chapman.
Vincent	Corner Lambert ave	"
Walden	" Concord ave	Flush.
"	" Dublin st	Chapman.
"	" Hubbard st	Flush.
"	" Mead st	Chapman.
"	" North ave	Boston.
Walker	414 feet from Shepard st	"
Washburne avenue	163 " from North ave	Chapman.
Washington avenue	Opposite Hillside ave	"
" "	142 feet from Lambert ave	Perkins.
" "	214 " from Linnæan st	Chapman.
Wicklow	213 " from Dublin st	Perkins.
Wyeth	Corner Garden st	Flush.

List of Meters in Use, November 30, 1893.

METER.	LOCATION.	SIZE INCH.	KIND.
Alghieri, Simon	Main st	¾	Worthington.
Allen & Endicott Building Co	Osborn st	1	"
American Net and Twine Co	Third st	2	"
American Rubber Co	Potter st	4	Union.
Andrews, D. H	Ninth st	2	"
Andrews, Dr. R. R	Harvard st	⅝	Crown.
Avon Home	Mt. Auburn st	1½	Worthington.
Barbour Ashphalt Co	First st	1½	Union.
Barbour Stockwell Co	Broadway,	2	Worthington.
" "	Davis st	2	Hersey.
Bay State Brick Co	Spruce st	1½	Union.
" Distilling Co	Cambridge st	2	Worthington.
Bell J. S	Hampshire st	⅝	"
Bennink, C. G. H	45 Harvard st	⅝	Union.
Bird, H. M	Broadway	⅝	"
Blake, G. F. Manf'g Co	Binney st	2	"
" "	Third st	2	Crown.
" "	"	¾	Worthington.
" "	"	2	Hersey.
Blake, Irving W	Church st	1	Worthington.
"	"	1	Crown.
B. & M. R. R. Co. Carhouse	Prison Point st	2	Worthington.
" Filling locos	" "	6	Union.
" Paint shop	" "	1	Worthington.
" Repair shop	Bridge st	2	"
" Round house,	Prison Point st	2	"
" "	" "	3	Frost.
" "	" "	3	Union.
Boston Curling Club	Lexington ave	1	Worthington.
Boston Ice Co	Prison Point st	1½	Union.
Boston Stamping Co	Third st	1½	"
Boston Woven Hose Co	Hampshire st	4	Worthington.
"	Portland st	4	Hersey.
Bragdon & Cooper	Frank st	⅝	Worthington.
Brewer, T. W	Brattle square	¾	"
Brown, L. S	Hampshire st	1½	Crown.
Browne, A. B	Hovey ave	1	Worthington.
Bullock, O. S	Broadway	¾	"
Burton, A. & E	Harvard st	¾	"
Buxton, George H. & Co. (stable)	Inman sq	¾	Crown.
Cambridge Baking Co	Green st	1½	Worthington.
Cambridge Elec. Light Co	Albro st	4	"
Cambridge Gas Light Co	Ash st	¾	"
" "	Third st	1	"
" "	"	2	"
Cambridge Hospital	Mt. Auburn st	1½	Crown.
Cambridge Y. M. C. A	Main st	1½	Union.
Cambridgeport Diary Co	Blackstone st	1½	"
Campbell & Co., Wm	Potter st	2	Worthington.
Carr Bros	Lopez st	1	"
Catholic Y. M. C. A	Prospect st	⅝	"
City of Cambridge, (Fountain)	Brattle and Cragie sts.	⅝	Nash.
" "	Brattle sq	¾	Thomson.
" "	Central sq	⅝	Duplex.
" "	Lechmere sq	⅝	Crown.
" "	North ave	⅝	Terry.
Chadwick Lead Works	North st	1	Worthington.
Champlin, E. R	Main st	1	Crown.
Chelmsford Foundry Co	Bridge st	¾	Worthington.
Clark, B. P. & Co	Main st	1½	Hersey
Clark, Miss M. E (gym)	Beech st	¾	Crown.
Clarke Coffee Co	Reed st	1½	Worthington.
Claverley Hall	Mt. Auburn st	3	Rotary.
Close, George	Broadway	1	Worthington.
Cochrane Chem. Co	Potter st	2	"
Cofran, N. M	Concord ave	1½	Union.

List of Meters—*Continued.*

METER.	LOCATION.	SIZE INCH.	KIND.
Coleman Bros.	Broadway	1	Worthington.
"	First st	1	"
Coolidge & Caswell	Franklin st	2	Hersey.
Coolidge, J. G. (barn)	Coolidge ave	2	Worthington.
" (greenhouse)	" "	1	"
Cushman Bros. & Co	Blanche st	¾	"
Cushing Process Co	Clark st	⅝	Crown.
Dailey, C. W	Cambridge st	1	Worthington.
Damon Safe & Iron Works	Main st	1	"
" "	"	2	Hersey.
Daniels, Badger & Co	Albany st	2	Crown.
Davenport, A. H.	Otis st	⅝	"
"	Cambridge st	2	Worthington.
Davis, Curtis & Co	Harvard st	1½	"
"	"	6	Union.
"	Broadway	2	Worthington.
Davis, J. C. & Co	"	4	"
"	Moore st	4	Union.
Dee, Thomas W	Fresh Pond lane	2	Hersey.
Derby, H	Main st	1	Union.
DeRosay, D. Warren	Dublin st	¾	Worthington.
Dolan, John	Decatur st	⅝	Crown.
Donald Bros	Charles st	¾	Frost.
Dover Stamping Co	Pleasant st	6	Crown.
Dow, E. A	Deacon st	1	Worthington.
Dow, J. C. & Co	Portland st	1	"
"	"	2	Crown.
Downing, Theo	Eustis court	1	Worthington.
Doyle, Wm. E	Cambridge st	1½	Union.
East Cambridge Club stable	First st	1	Worthington.
Eliot, G. W. & Co	Gore st	⅝	"
Ellis, S. R. (stable)	Oxford st	¾	"
Episcopal Theo. Seminary	Brattle st	1½	"
Fabyan, J. E	Ellery st	¾	"
Fairbanks, Mrs. M. J. (stable)	Norfolk st	1	"
Ferguson, Dr. W	Green and Bay sts	⅝	"
Fletcher, C. R	Osborn st	¾	Crown.
Flintze, E	Otis st	1½	Thomson.
Furfey, Jas	Brookline st	⅝	Worthington.
Gillon, Mrs	Farwell pl	1	"
Goepper Bros	Ninth st	1½	"
"	Spring st	2	"
Gwynne & Co	Brattle st	1	Crown.
Harvard College Annex	Mason st	⅝	Union.
" "	Garden st	2	Frost.
" Boathouse	Dewolf st	¾	Thomson.
" Weld Boathouse	Boylston st	2	Hersey.
" Botanic Garden	Garden st	1	Crown.
" Boylston Hall	College grounds	2	"
" "	" "	2	Hersey.
" Gore Hall	" "	1	Worthington.
" Carey Building	Oxford st	2	"
" Gymnasium	Kirkland st	2	Union.
" Harvard Hall	Peabody st	2	"
" Hastings Hall	North ave	1½	Hersey.
" Holworthy	College grounds	⅝	Worthington.
" Holyoke	Harvard st	2	"
" Holmes Field	North avenue	2	Union.
" In yard	College grounds	1½	Worthington.
" Jeff. Phys. Lab	Holmes' field	1½	Crown.
" Jarvis Field	Everett st	⅝	Worthington.
" Lawrence Sc. Sc.	Kirkland st	¾	"
" Law School	Holmes' field	1	"
" Agassiz Museum	Divinity ave	1	"
" "	"	1½	"
" Memorial Hall	Cambridge st	2	"
" Sever Hall	College grounds	¾	"
" Stoughton	" "	1½	Thomson.
" Thayer	" "	1½	Worthington.
" Tennis grounds	Everett st	1½	"
" "	Oxford st	⅝	Union.

List of Meters—*Continued.*

METER.	LOCATION.	SIZE INCH.	KIND.
Harvard College University	College grounds	2	Union.
Harvard Piano Co	Main st	1	Worthington.
Hale, Aaron	Elm st	¾	Thomson.
Halloran, Rev. John B	Spruce st	1	Worthington.
Hannum, L. M	Green st	1	"
Hawkins Machine Co	First st	1	"
Hazen, D. M	Elm st	1	"
Hayward Confectionery Co	Main st	1	"
Henderson Bros	Hadley st	⅝	"
Hews, A. H. & Co	Crescent ave	1	"
"	Walden st	½	"
Hersey, Ira G	Broadway	1½	"
Hilton, J. M	Harvard st	1½	Hersey.
Hjorth, F. H	Elm st	1	Worthington.
Holt & Bugbee	East st	¾	"
Holton, F. H. & Co	Harvard st	2	"
Horgan, J. H	Main st	¾	Union.
Houghton & Co., H. O	Blackstone st	⅝	Crown.
"	"	2	Worthington.
Howe, David	Distillhouse st	2	Crown.
I. O. O. F	North ave	2	Worthington.
Ivers & Pond	Main st	2	"
"	"	2	Crown.
"	"	2	Union.
Irving & Casson	Otis st	1	Worthington.
Jones C. L	Pearl st	¾	Ball & Fitts.
Keeler & Co	Thorndike st	2	Union.
Kemp, L. & Co	Davis st	2	Worthington.
Kendall & Sons	Main st	1	"
"	"	2	Union.
Kennedy, F. A	"	¾	Thomson.
Kerr, Ropes & Crowell	Bridge st	2	Worthington.
Lake & Moynahan	Main st	¾	Crown.
Lamb & Ritchie	Albany st	1	"
Laminar Fibre Co	Tannery st	2	Worthington.
Langlois Moulton	Cedar st	¾	Union.
Lerner, Jos	Mt. Auburn st	1	Worthington.
Linehan, Charles	Bridge st	1	Crown.
Little, Brown & Co	Blackstone st	⅝	Union.
Little, George	Harvard st	1½	Worthington.
" John	"	1	"
Mason & Hamlin O. & P. Co	Broadway	2	Hersey.
Maverick Oil Works	Sixth st	2	"
McLeod, Wm. G	Elm st	⅝	Worthington.
Middlesex Co. House of Correction	Second st	2	"
" "	Spring st	4	Union.
" Court House	Otis st	1	Crown.
" "	Thorndike st	1	Worthington.
" Registry of Deeds	Otis st	1½	"
Middlesex Bleachery & Dye Works	Sacramento st	1	"
Milan, Alex	Brattle st	⅝	Crown.
Miller & Shaw	Broadway	1	Worthington.
Moring, Estate of A. L	Main st	1	Hersey.
Morss & Whyte	Auburn st	4	Crown.
Moulton, C. W. H	Gore st	⅝	Worthington.
Mt. Auburn Corporation	Mt. Auburn st	⅝	Desper.
" "	Brattle	2	Hersey.
" "	Coolidge ave	4	Worthington.
Murdock, W. H	Grigg st	⅝	Ball & Fitts.
McNamee, J. H. H	Main st	2	Hersey.
McNamee, John & Sons	Mt. Auburn st	⅝	Worthington.
National Linseed Oil Co	Fifth st	1	"
New England Dredging Co	Front st	4	Crown.
New England Spring Bed Co	Osborn	⅝	Union.
New England Stone Co	Main st	⅝	"
New York Biscuit Co	Franklin st	1½	"
" "	"	2	"
" "	Green st	2	"
" "	"	3	Worthington.
Norcross Bros	Brookline st	1½	Union.
Norton, George W	Distillhouse st	1	Worthington.
O'Brien, John F	Coolidge ave	¾	"

List of Meters—*Continued.*

METER.	LOCATION.	SIZE INCH.	KIND.
O'Brien, Rev. Robt. E.	Norfolk st	¾	Terry.
Oliver, George R.	Main st	1½	Frost.
Orr, Rev. Wm	Arrow st	1	Worthington.
Page, George G., Box Co	Hampshire st	2	"
" "	"	4	Union.
Page, Carlos	Broadway	1½	Worthington.
Paige, D. A	Bridge st	¾	Crown.
Parry Bros.	Raymond st	¾	Worthington.
Porcellian Club	Harvard st	1	Hersey.
Phillips Bros. & Co	Main st	¾	Worthington.
Place, Charles	Norfolk st	1½	"
Purcell, Hycenth	Main st	⅝	"
Quin, John	Otis st	1½	Union.
Rawson & Morrison	Main st	¾	"
Reardon, J. Sons	Waverly st	4	Worthington.
Revere Sugar Refinery	Water st	3	Union.
"	"	3	"
Reversible Collar Co	Mt. Auburn st	1½	Worthington.
Rice, W. P.	First st	¾	Crown.
Rideout, M. E. & Co	State st	1	Worthington.
Roberts Iron Works Co	Main st	1½	Union.
Roberts O. P.	Brattle st	1	Worthington.
Rogers, Heirs of Geo. M.	Washington st.	3	"
Roughan, J.	Prison Point st	2	Union.
Rutherford, R. J.	First st	1	Ball & Fitts.
Sands, M. W.	Dublin st	⅝	Worthington.
" "	"	⅝	"
Salvation Army	Prospect st	¾	"
Shaw, A. B. & E. L.	Otis st	¾	"
Shorey, G. L.	Kinnard st	4	Union.
Slavens, H. C.	Broadway	¾	"
Smart, D. C.	Main st	2	Worthington.
Somers, Adolph	First st	2	Crown.
Somerby, C. H. (Stiles stable).	Cambridge st	1	Union.
Spaulding Cable Works	Main st	⅝	"
Speare's, S. Alden, Sons & Co	Rogers st	1½	Worthington.
" "	Binney st	3	"
Squires, J. P. & Co	Gore st	1	"
"	"	2	"
"	"	4	Union.
"	"	6	Gem.
Standard Action Co	Osborn st	1½	Worthington.
St. Mary's Catholic Church	Norfolk st	2	"
St. Peter's Catholic Church	Concord ave	2	Union.
St. Paul's Catholic Church	Mt. Auburn st	2	"
Storr D. C. Furniture Co	First st	¾	Metropolitan.
Sullivan, Mrs. Mary	Broadway	⅝	Union.
Sutterlee, C. A.	North ave	¾	"
Teele, Frank H.	Lincoln court	¾	Worthington.
Thayer, H. & Co.	Broadway	2	"
Tower, Sylvester & Son	"	2	"
Tracy, M. F.	Boylston st	¾	"
Underhill & Anderson	First st	1½	"
" "	"	2	Union.
Union Glass Co	Webster ave	⅝	Worthington.
"	" "	1	"
Vanner, Jos	Columbia st	1	"
Warren, J. H., Felton Hall	Cambridge st	1	"
West End St. R. Co. Carhouse	Dunster st	¾	"
" "	Murray st	1	"
" Electric Carhouse	"	1	"
" Power house	North st	2	"
" "	"	3	"
" Office	Harvard sq	¾	Crown.
" Paint shop	Dunster st	1	Worthington.
" Repair shop	"	1	"
" (stable)	Baldwin st	1	"
" "	Brookline st	1	"
" "	Dunster st	1	"
" "	"	¾	Hersey.
" "	Main st	2	Worthington.
" "	Mt. Auburn st	2	Crown.

List of Meters—*Continued.*

METER.	LOCATION.	SIZE INCH.	KIND.
West End St. R. (stable)	Murray st.	1½	Worthington.
" "	North ave	2	"
" "	River st	1	"
" Waiting Room	Main st.	5/8	Thomson.
" "	Bridge st.	5/8	Union.
Weitze, Robt	Eighth st.	3/4	"
"	Thorndike st.	1	Worthington.
Whitney, H. M	Main st.	5/8	Crown.
Wight & Scorgie	Mt. Auburn st.	5/8	"
Wilcox, David	Davis st	2	Worthington.
Wilkins, W. & Co	Earl st.	1	Union.
Willard, F. L	Harvard st.	3/4	"
Williams, H. A. Mfg. Co	Otis st.	5/8	Worthington.
Wilson, John & Sons	Brattle sq.	1½	Hersey.
Woods, J. M. W. & Co	Bridge st.	1½	Worthington.
Wood, Taylor, & Co	Thorndike st.	3/4	"
Zerega, J. P	State st.	5/8	"

List of Drinking Fountains, November 30, 1893.

Brattle street, junction of Craigie street.
Brattle street, east side, at Brewer's Block.
Bridge street, junction of Cambridge street.
Broadway, corner of Norfolk street.
Central square, east side.
Central square, west side.
Davis square, North avenue.
Garden street, at Washington Elm.
Hampshire street, junction of Broadway.
Harvard square, at the flagstaff.
Inman square, east side.
Lechmere square.
Main street, junction of Broadway.
Main street, junction of Mt. Auburn street.
Mt. Auburn street, corner of Coolidge avenue.
North avenue, at Igo's.
North avenue, corner of Walden street.
Putman avenue, corner of Brookline street.
Spruce street.
Webster avenue and Windsor street.

List of Standpipes for Street Watering, November 30, 1893.

Albany street, near Front street.
Antrim street, near Broadway.
Bow street, at angle.
Boylston street.
Brattle street, near University Press.
Brattle street, near Fayerweather street.
Brattle street, near Fresh Pond lane.
Brattle street, corner Sparks street.
Bridge street, junction of Cambridge street.
Broadway, junction of Hampshire street.
Broadway, corner of Sixth street.
Broadway, near Third street.
Broadway, corner of Windsor strcet.
Brookline street, corner of Putman avenue.
Cambridge street, corner of Baldwin street.
Cambridge street, at Inman square.
Cambridge street, near Warren street.
Cambridge street, near Windsor street.
Concord avenue, near Wyeth street.
Coolidge avenue, opposite entrance to Mt. Auburn Cemetery.
Cushing street, near Belmont street.
Dana street, corner of Chatham street.
Fresh Pond avenue, opposite Vassal lane.
Garden street, opposite Linnæan street.
Gore street, west from Third street.
Green street, near Western avenue.
Hancock street, corner of Main street.
Kirkland street, near Quincy street.
Lake View avenue, corner of Concord avenue.
Main street, near Portland street.
Magazine street, opposite Warland street.
Mt. Auburn street, near Athens street.
Mt. Auburn street, corner of Coolidge avenue.
Mt. Auburn street, near Willard street.
Norfolk street.
North avenue, near the common.
North avenue, near Beech street.

North avenue, near Roseland street.
North avenue, near Spruce street.
North avenue, corner of Norris street.
North avenue, opposite Hudson street.
North avenue, opposite Tannery street.
Oxford street, near Sacramento street.
Pine street, near Austin street.
Prison Point street, opposite round house.
Putnam avenue, opposite school house.
River street, near Putnam avenue.
Sixth street, near Thorndike street.
Spruce street, corner of Cedar street.
Third street, near Rogers street.
Thorndike street, near Third street.
Walden street, corner of Mt. Pleasant street.
Washington avenue, near Lambert avenue.
Waterhouse street, near the common.
Watson street, corner of Brookline street.
Western avenue, corner of Howard street.

Main Pipe Laid, Number of Gates and Fire Hydrants.

LOCATION.	IRON PIPE.		GATES.		HYDRANTS.	
	Length.	Size.	No.	Size.	No.	Size.
	Feet.	Inch.		Inch.		Inch.
Allston, between Magazine and Pearl streets	6	6	....	....	1	6
Allston, corner Magazine street	.....	....	1	8	....	....
Allston, from Magazine to Pearl street	488½	8	....	....	....	....
Amory, corner Broadway	10	6	1	6	1	6
Amory, corner Hampshire street	3	4	1	4	....	....
Auburn street	2125	8	....	....	....	....
Auburn, corner Brookline street	7	6	2	8	1	6
Auburn, corner Magazine street	7	6	2	8	1	6
Auburn, corner Pleasant street	.....	....	2	8	....	....
Auburn, corner River street	7	6	1	8	1	6
Auburn, corner Sidney street	.....	....	1	8	....	. ..
Berkeley street	786	6	....	....	....	....
Berkeley, corner Phillips place	7	6	1	6	1	6
Berkeley, half way	6	6	....	....	1	6
Bismark street	3	1½	....	....	....	....
Bismark street	411	4	....	....	....	....
Bismark, corner Gladstone street	.....	....	1	4	....	....
Brookford street	357	6	....	....	....	....
Brookford, at North Avenue	.....	....	1	6	....	....
Brookford street, half way	7	6	....	....	1	6
Brookline, near Henry street	.....	....	....	....	1	6
Carver street	118	6	....	....	....	....
Carver, corner Museum street	.....	....	1	6	....	....
Cedar street	1060	10	....	....	....	....
Cedar, corner Norris street	7	6	....	....	1	6
Cedar, corner Spruce street	.....	.. .	1	10	....	....
Cedar, near B. & M. R. R. crossing	7	6	1	10	1	6
Cedar, near Harvey street	6	6	....	....	1	6
Chestnut, corner Pearl street	.....	....	2	6	....	....
Chestnut, corner Pleasant street	45	6	1	6	....	....
Church street, midway	17	6	....	....	1	6
Clay, corner Dudley street	.....	....	1	6	....	....
Clay, corner George street	7	6	....	....	1	6
Clay, from Dudley to George street	296	6	....	....	....	....
Clifton street	72	6	....	....	....	....
Columbia, corner Hampshire street	7	6	1	6	1	6
Cushing avenue	132	4	....	....	....	....
Davenport, from Orchard to Saginaw avenue	155	4	...	....	...	....
Decatur, from Brookline to Pearl st	490	6	....	....	....	....
Decatur, corner Brookline street	.....	....	1	6	....	....
Decatur street, half way	6	6	...	....	1	6
Elm, at Hampshire street	.....	....	2	6	....	....
Fayerweather street	3	1½	....	....	....	....
Fayerweather street	267	8	....	....	....	....
Florence, corner Magazine street	.....	....	1	8	....	....
Florence, corner Pleasant street	13	8	1	8	....	....
Florence, from Magazine to Pleasant street	505½	8	....	....	....	....
Florence, opposite Gordon place	15	6	....	.. .	1	6
Foster street	1½	1½	....	....	....	....
Frost, corner Roseland street	2	4	1	4	....	....

Main Pipe Laid, Number of Gates and Fire Hydrants—*Continued.*

LOCATION.	IRON PIPE.		GATES.		HYDRANTS.	
	Length.	Size.	No.	Size.	No.	Size.
	Feet.	Inch.		Inch.		Inch.
Garden, corner Appian way	2	10	1	10	....	....
Garden, from Donnell street east	93	6	....	....	....	....
Gardner, corner Prospect street	15	6	1	6	....	....
George, corner Dudley street	.....	....	1	6	....	....
Gladstone, corner Bsimark street	6	6	....	....	1	6
Gladstone, corner North avenue	.....	....	1	6	....	....
Gladstone, from Bismark to North ave	247	6	....	....	....	....
Gore, corner Squire's court	.....	....	....	....	1	6
Hall place..,	84	4	....	....	....	....
Hampshire street	380	6	....	....	....	....
Hampshire, from Cambridge to Columbia street	1870	8	....	....	....	....
Hampshire, corner Amory street	13	6	1	6	1	6
Hampshire, corner Columbia street	.....	....	2	8	....	....
Hampshire, corner Prospect street	7	6	....	....	1	6
Hampshire, corner Tremont street	.....	....	1	8	....	....
Hancock, from Main street north	122	6	1	6	....	....
Hancock street	33	4	....	....	....	....
Harvey street	129	6	....	....	....	....
Hastings, corner Portland street	20	4	1	4	....	....
Holyoke street	390	4	....	....	....	....
Hovey avenue	3	1½	....	....	....	....
Hovey avenue	219	6	....	....	....	....
Huron, corner Fayerweather street	27	6	1	6	1	6
Irving, from Broadway	166	6	....	....	....	....
Irving, between Broadway and Cambridge street	31	6	....	....	1	6
Irving, between Cambridge and Kirkland street	14	6	....	....	2	6
Irving, corner Kirkland street	7	6	....	....	1	6
Irving, from Cambridge to Kirkland street	796	6	1	6	....	....
Irving, from Kirkland street northeast	70	8	....	....	....	....
Jackson, between Harvey and Spruce streets	1377½	6	....	....	....	....
Jackson, between Dudley and Spruce streets	7	6	....	....	1	6
Jackson, corner Dudley street	.....	....	1	6	....	....
Jackson, corner Harvey street	.....	....	1	6	....	....
Jackson, corner Spruce street	.....	....	1	6	....	....
Lake View avenue, from Concord avenue south	4192	6	....	....	....	....
Lake View avenue, corner Concord avenue	20	6	1	6	1	6
Lake View avenue, corner Concord avenue	42	2	....	....	....	....
Lake View avenue, opp. engine house	7	6	....	....	1	6
Lake View avenue, opp. Vassal lane	.....	....	1	6	....	....
Lexington avenue, (Ward 5.)	144	6	....	....	....	....
Linden, from Harvard street	38	4	1	6	....	....
Line, from Cambridge street north	245	6	....	....	....	....
Line, at Cambridge street	.....	....	1	6	....	....
Line, near Cambridge street	6	6	....	....	1	6

Main Pipe Laid, Number of Gates and Fire Hydrants—*Continued.*

LOCATION.	IRON PIPE.		GATES.		HYDRANTS.	
	Length.	Size.	No.	Size.	No.	Size.
	Feet.	Inch.		Inch.		Inch.
Magazine, corner Chestnut street	7	6	....	....	1	6
Magazine, corner Florence street	.....	....	1	6	....	....
Magazine, opp. Tufts street	7	6	....	....	1	6
Main, from Broadway to Portland st	2780	12	....	....	....	....
Main, corner Brewery street	8	6	....	....	1	6
Main, near Broadway	.....	....	1	12	....	....
Main, corner Deacon street	34	6	1	6	1	6
Main, corner Pelham street	.....	....	1	12	....	....
Main, corner Pelham street	34	6	1	6	....	....
Main, corner Pioneer street	34	6	....	....	....	....
Main, corner Portland street	.....	....	1	12	....	....
Main, near B. & A. R. R. crossing	9	6	....	....	1	6
Main, near B. & A. R. R. crossing	.....	....	1	12	....	....
Main street, near Stewart's	35	6	1	6	1	6
Main, corner Third street	91	6	1	6	1	6
Maynard place	18	1½	....	....	....	....
Murdock, corner Hampshire street	.....	....	1	4	....	....
Museum street	3	1½	....	....	....	....
Museum street	111	6	....	....	....	....
Norfolk, corner Hampshire street	7	6	2	6	1	6
North avenue, from Cedar to Tannery street	1615	10	....	....	....	....
North avenue, at B. & M. R. R. crossing	43	6	1	6	1	6
North avenue, near Clarendon avenue	10½	6	....	....	1	6
North avenue, corner Tannery street	.....	....	1	10	....	....
North avenue, corner Tannery street	10½	6	1	6	1	6
North avenue, corner Roseland street	12	6	1	6	....	....
North avenue, corner Washburn ave	13	6	....	....	1	6
Onley avenue	3	1½	....	....	....	....
Onley avenue	254½	6	....	....	....	....
Onley avenue, corner Spruce street	.....	....	1	6	....	....
Orrin, at Garden street	13	6	1	6	....	....
Oxford, from Kirkland to Everett st	1426	6	....	....	....	....
Oxford, corner Jarvis street	6	6	....	....	1	6
Oxford, corner Kirkland street	.....	....	1	6	....	....
Oxford, between Kirkland and Jarvis streets	14	6	....	....	2	6
Pearl street, between Henry and Putnam avenue	677	8	....	....	....	....
Pearl, corner Henry street	.....	....	1	8	....	....
Phillips place, from Mason street	506½	6	....	....	....	....
Phillips place, at bend	.....	....	1	6	....	....
Phillips place, at Mason street	.....	....	1	6	....	....
Phillips place, half way	7	6	....	....	1	6
Pleasant, from Chestnut to Florence st	305	8	....	....	....	....
Portland street	378	12	....	....	....	....
Portland, corner Harvard street	.....	....	1	12	1	6
Portland, corner Hastings street	15	6	....	....	1	6
Prospect street	1150	6	....	....	....	....
Prospect, corner Broadway	9	6	2	6	1	6
Prospect, between Broadway and Summer street	7	6	....	....	1	6

Main Pipe Laid, Number of Gates and Fire Hydrants—*Continued.*

LOCATION.	IRON PIPE.		GATES.		HYDRANTS.	
	Length.	Size.	No.	Size.	No.	Size.
	Feet.	Inch.		Inch.		Inch.
Prospect, corner Gardner street	7	6	....	....	1	6
Prospect, corner Hampshire street	.....	....	2	6	....	....
Prospect, between Hampshire and Gardner streets	7	6	....	....	1	6
Railroad street	72	4	....	....	...	....
Reed court	42½	1¼	....	....	....	....
Remington street	3	1½	....	....	....	....
Remington street	36½	4	....	....	....	....
Rice street, corner Cedar	.....	....	1	6	....	....
Roseland, between North avenue and Forest street	499	6	....	....	....	....
Roseland, between North avenue and Forest street	7	6	....	....	1	6
Roseland, corner North avenue	.....	....	1	6	....	....
Rutland street	157	4	1	4	....	....
Saginaw avenue, from Davenport st. to Somerville line	273	4	....	....	....	....
Saginaw avenue	3	1½	....	....	....	....
Saginaw avenue, corner Davenport st.	.....	....	1	4	....	6
Saginaw avenue, at bend	14	6	....	....	1	.. .
Scott street	3	1½	....	....	....	....
Scott street	108½	6	....	....	....	....
Spruce street, (Fountain.)	15	¾	....	....	....	6
Spruce street, opp. Cedar street	21	6	1	6	1	...
Sullivan court	204	2	....	....	....	....
Summer, corner Amory street	2	4	1	4	....	....
Summer, corner Prospect street	.....	....	1	6	....	...
Tannery street	291	6	1	6	....	....
Tremont, corner Hampshire street	.....	....	2	6	....	....
Trowbridge, from Kirkland street	419	6	....	....	....	....
Trowbridge, from Kirkland street	8	4	....	....	....	....
Trowbridge, corner Kirkland street	.....	....	1	6	....	....
Trowbridge, near Kirkland street	7	6	....	....	1	6
Tufts, from Magazine to Pearl street	519½	8	....	....	....	....
Tufts, corner Magazine street	.....	....	1	8	....	....
Tufts, corner Pearl street	.....	....	1	8	....	6
Tufts, between Magazine and Pearl st.	7	6	....	....	1	....
Vineyard, from Cushing street	3	1½	....	....	....	....
Vineyard, from Cushing street	238	4	....	....	....	....
Vineyard, corner Cushing street	.....	....	1	4	....	....
Walden street, court off	129	2	....	....	.. ..	....
Washburne avenue, from North ave.	3	1½	....	....	....	....
Washburne avenue, from North ave.	468	6	....	....	....	6
Washburne avenue, half way	5	6	....	....	1	....
Washburne avenue, corner North ave.	.....	....	1	6	....	....
Washington court	116	2	....	....	....	....
Westerly avenue, corner Harvey street	.....	....	1	4	....	....
Westerly avenue, from Harvey street	172	4	....	....	....	....
Westerly avenue, from Harvey street	3	1½	....	....	....	....
West Lambert avenue, at Raymond st.	.....	..	1	6	....	....
West Lambert avenue	3	1½	....	....	....	....
West Lambert avenue	284½	6	....	....	....	....

The short lengths of one and one-half inch pipe mentioned in above statement were used for blow-offs on extensions that were not connected.

Recapitulation.

	12 Inch.	10 Inch.	8 Inch.	6 Inch.	4 Inch.	2 Inch.	1½ Inch.	1¼ Inch.	1 Inch.	¾ Inch.	Total.
Length in feet of iron pipe	3158	2677	337	9768	1836½	491	55½	42½		15	18380½
Length in feet of iron pipe (renewals)			6503½	4114½	390						11008
Number of gates	5	4	17	55	10						91
Number of hydrants				58							58

New Supplies.

	8 Inch.	6 Inch.	4 Inch.	2 Inch.	1½ Inch.	1¼ Inch.	1 Inch.	¾ Inch.	Total.
Length in feet of pipe	5	46	66	540½	223½	1802½	3414	8136	14,233½
Number of supplies	1	1	2	17	6	48	74	240	389
Number of stop and waste valves				15	4	46	71	240	376
Number of screw cocks				17	6	47	71	230	371
Number of sidewalk cocks						47	64	230	341
Number of service boxes									338
Number of boxes, frames and covers									41

List of Check Valves.

OLD HIGH SERVICE.

	Size in Inches.
Arlington street, 230 feet west of North avenue	6
Avon Hill and Linnæan streets	6
Concord avenue, 135 feet south from Buckingham street	6
Fayerweather and Reservoir streets	6
Garden and Linnæan streets	6
Lake View avenue 150 feet north from Brattle street	6
Lake View avenue 150 feet north from Huron street	10
Mt. Vernon street, 100 feet west from North avenue	6
Mt. Pleasant street, 150 feet south from Walden street	6
Raymond and Linnæan streets	6

List of Check Valves—*Continued.*

NEW HIGH SERVICE.

	Size in Inches.
Appian Way, near Brattle street	4
Appleton street	6
Berkeley street, near Craigie street	4
Bigelow and Main streets	6
Broadway, on line of 6 in. pipe crossing College grounds	6
Buckingham street, near Parker street	4
Clinton and Main streets	6
Dana street, near Main street	4
Dana street, corner Broadway	4
Dublin street	6
Hancock street, corner of Harvard street, north	4
Harvard street, corner of Bigelow street, east	10
Harvard and Ellery streets (two valves)	6
Harvard and Prescott streets	4
Harvard and Trowbridge streets	4
Harvard and Ware streets	4
Highland street, on old 12 in. main	12
Kirkland and Cambridge streets	10
Kirkland street and Frisbie place	4
Lee and Harvard streets	4
Lee and Main streets	4
Lexington avenue, near Brattle street	6
Linden street, corner of Harvard street	4
Linnæan and Lancaster streets (old high service extension)	6
Madison street and Concord avenue	4
Quincy street, near Broadway	4
Waterhouse street, near small common	6

WROUGHT IRON FITTINGS.

	6-in.	4-in.	3-in.	2½-in.
Bushings and reducing couplings	2	5	14	6
Couplings	2	3	3	9
Elbows	2	6	8	3
Flanges	4	3	....	....
Pipe in feet	....	20	4	4
Plugs and caps	....	6	....	2
Nipples	2	9	9	5
Tees	....	2	2	....

List of Check Valves.—*Continued.*

FOR SUPPLIES (GALVANIZED PIPE AND FITTINGS AND BRASS FITTINGS).

	2-in.	1½-in.	1¼-in.	1-in.	¾-in.	½-in.	
Air chambers				45	82	38	
Bushings and reducing couplings	112	53	88	33	34		
Caps and plugs	22	48	52	53	60	59	
Chapman drip valves	23	10	7	55	88		
Check valves	7	1	1	6	2		
Couplings	25	54	53	51	153		
Crosses	22	12	17	16	10		
Driving cocks, threaded					13		
Elbows	57	39	60	58	72		
Faucets				11	14	13	
Fountain cocks					13		
Goosenecks for blow-offs			4				
Hose nipples				8			
Hydrant cocks		9		6	9		
Lead connections				1	5		
Lead connecting unions				32	48		
Nipples	51	84	110	155	404	3	
Pipe, galvanized, in feet	750	782	391	1655	6074		
Screw cocks	38	25	19	70	166		
Screw cocks for cement pipes		5		7			
Self-closing fountain faucets						8	
Sidewalk cocks			6	106	100		
Sill cock					10		
Socket ends of rod							9
Street elbows				49	43		
Stop and waste cocks	10	12	2	8			
Stop and wastes for flush hydrants						21	
Tees	16	25	36	36	40	55	
Tees, reducing	15	27	31	10	50		
Unions	40	25	63	24	20	5	

List of Check Valves.—*Continued.*

FOR STREET MAINS (IRON PIPES AND FITTINGS).

	48 in.	30 in.	24 in.	20 in.	16 in.	12 in.	10 in.	8 in.	6 in.	4 in.	3 in.
Bends	....	1	2-16	1-16	....	11-16	5-16	7-16	7-16	....	.....
Bends	....	....	....	1-8	....	4-8	13-8	25-8	29-8	12-8	1
Bends	...	....	1	....	2	15	12	27	33	6	.....
Blow-off branches	....	....	....	1-6	....	.....	.....	.....	.....	....	.....
Caps	....	....	....	....	....	5	2	14	12	11	.....
Cast iron plugs	....	....	....	2	....	.....	.....	.....	.....	....	.....
Clamp sleeves for cement pipe	....	...	5	4	....	.....	4	.....	.....	1	.....
Clamp sleeves	....	...	2-6	1-6	2	5	4	8	14	5	8
Clamp sleeves	....	....	3	4	....	.....	.....	.....	.....	....	.....
Clamp sleeves (Smith)	....	1	1	3	...	2	3	1	.....	....	.....
Check valves	....	. .	2	...	....	1	1	.....	.....	....	.....
Crosses	....	....	....	1	....	17	1	7	8	13	2
Crosses	....	....	....	....	2-6	5-6	2-8	8-6	7-4	....	.....
Crosses	....	....	....	....	....	5-4	5-10	2-4	.....	. .	.....
Crosses	....	....	....	....	....	7-8	.....	.....	.....	....	.....
Drain offsets	....	....	....	....	....	.....	.....	.....	8	....	.....
Chapman gates (nut)	. ..	....	....	....	.. .	5	.....	2	1	17	.....
Chapman gates (second hand)	....	....	....	....	....	.....	1	.....	11	54	... .
Chapman gates, wheel handles	....	....	....	....	....	.....	.....	.....	1	2	.....
Offsets	....	....	....	....	....	25-12	15-12	26-12	27-12	7	.....
Offsets	....	....	....	....	....	.....	.....	.....	5-6	....	.....
Pipe, in lengths	2	1	1	44	2	281	12	231	115	80	.....
Reducers	....	....	1-10	2-8	1-6	8-6	9-8	3-4	13-4	3-3	.....
Reducers	....	....	...	2-12	....	2-10	1-6	16-6	.....	....	.....
Reducers	....	....	....	....	....	3-8	.....	.....	.....	....	.....
Sleeves	....	1	4	6	1	5	18	20	30	36	7
Tees	....	....	1	2	2	8	5	10	42	15	.....
Tees	....	1-6	3-6	3-6	1-6	1-8	6-8	28-6	17-4	....	.....
Tees	....	..	1-8	3-12	....	5-10	14-6	... .	.....	....	.....
Tees	....	....	1-20	....	. ..	6-6	... .	.....	....	....	.....
Wooden plugs	....	....	2	2	2	6	13	9	33	29	38
Y branches	....	....	1	1-12	....	1	.....	.....	. ...	....	.....
Hawkes' clamp sleeves	....	....	....	....	....	.....	3	7	7	5	.....
Smith gates	....	....	....	....	...	.....	.....	.....	11	....	.. ..

Stock in Shop and Yard.

3 axes.
2 tamping bars.
6 iron bars.
4 tool bags.
3 work benches.
1 30 inch overflow bell.
7 pairs rubber boots.
12 blankets.
10 cock boxes.
13 hydrant boxes.
52 iron boxes.
153 service boxes.
2 meter boxes.
18 wooden boxes.
1 thawing boiler and furnace.
1 rattan broom.
2 buggies.
1 Goddard buggy.
9 oil cans.
1 tip cart.
1 1-2 casks cement.
15 chains.
9 chairs.
4 tool chests.
3 grain chests.
1 barrel charcoal.
1 barrel clay.
1 clothes closet.
1 drying closet.
1 meter closet.
2 clocks.
3 oil coverings for horses.
1 hay cutter.
1 washer cutter.
10 pipe cutters.
500 feet cypress.
2 small derricks.
2 breast derricks.
1 Prentiss upright drill.
2 sets dies.
2 hay forks.
2 manure forks.
90 large frames and covers for gates.
9 small frames and covers for gates.
50 frames and covers for hydrants.
4 furnaces.
1 Atlas engine.
2 grindstones.
2 claw hammers.
3 hand hammers.
3 paving hammers.
7 sledge hammers.
7 harnesses.
3 hatchets.
2 paving heaters.
1 floating hook.
7 horses.
11 wooden horses.
2 hoes.
1 blow-off hose.
65 feet of 3-4-inch hose.
150 feet of 2 1-2-inch hose.
4 hooks for tapping pipe.
3 old flush hydrants.
31 post hydrants.
9 hydrant bodies.
15 post hydrant jackets.
9 post hydrant rods.
6 3-4-inch garden hydrants.
1 lathe with chucks and tools.
1 ladder.
4 ladles.
47 lanterns.
4 lead kettles.
3000 lbs. of lead.
8 large malls.
3 machines for tapping cement pipes.
3 machines with taps and drills, for tapping supplies.
1 Saunders' pipe machine with dies.
1 Smith drilling machine.
1 3 1-4-inch Balance Valve meter.
1 5-8-inch Ball & Fitts meter.
1 1-inch Ball & Fitts meter.
1 3-4-inch Buffalo meter.
1 1-inch Crown meter.
1 2-inch Frost meter.
5-8-inch Union Rotary meters.
3-4-inch Union Rotary meter.
1 1 1-2-inch Union Rotary meter.
1 2-inch Union Rotary meter.
2 3-inch Union Rotary meters.
2 4-inch Union Rotary meters.
1 6-inch Union Rotary meter.
1 3-4-inch Weir meter.
4 5-8-inch Worthington meters.

2 3-4-inch Worthington meters.
3 1-inch Worthington meters.
10 oilers.
100 lbs. hemp packing.
52 lbs. rubber packing.
20 pails.
26 picks.
12 plates with dies. Plane, level and square.
127 lbs. lead pipe.
450 feet thawing-out pipe.
2 diaphragm pumps and hose.
2 hand pumps.
11 Johnson pumps.
1 Heald & Sisco pump.
3 pungs.
3 paving rammers.
17 trench rammers.
2 rakes.
2 ratchets and drills for tapping main pipe.
1 meter rack.
1 pick rack.
1 shovel rack.
1 wrench rack.
156 risers for boxes.
16 shutoff rods.
3 buffalo robes.
5 lap robes.
4 rope tackle.
8 elevating screws.
2 bracing screws.
1 sand sieve.
2 sleighs.
8 screw drivers.
7 saws.
2 platform scales.
65 shovels.
220 seals.
1 old stove.
29 feet shafting with belts and pulleys.
1 saw table complete.
2 tanks for measuring water.
1 box hydrant tools.
3 sets main pipe tools.
1 truck.
6 pipe tongs.
2 chain tongs.
3 trowels.
4 bench vises.
4 wagons.
3 wheelbarrows.
2 cords of wood.
5 blow-off wrenches.
5 1-inch cock wrenches.
5 2-inch cock wrenches.
8 fork wrenches.
7 monkey wrenches.
12 gate wrenches.
18 pipe wrenches.
6 small tee wrenches.
4 flush hydrant wrenches.
600 lbs. old brass.
Lot of blocks and wedges.
Lot of bolts and clocks for meters.
Lot of counters and ratchets.
Lot of old dies.
Lot of old hydrant parts.
Lot of old iron.
Lot of block stone.
Lot of old timber.

Tools at Fresh Pond.

AT THE PIT.

1 clay auger.
1 axe.
5 iron bars.
2 long bank bars.
4 lead bars.
7 chains.
4 whippletree chains.
1 pair yoke chains.
2 tool chests.
6 draught chains.
1 stone drag.
6 sledge hammers.
9 grub hoes.
1 level.
5 malls.
3 pails.
4 chisel picks.
36 picks.
2 plows.
1 cross-cut saw.

1 hand saw.
2 iron scrapers.
1 wooden scraper.
2 sod spades.
45 shovels.
1 monkey wrench.
2 iron wedges.
10 wheelbarrows.
Lot of old shovels.
1 gravel screen.
1 watering pot.
2 stone drills.

RAILROAD TOOLS (on the works.)

1 axe.
6 tamping bars.
2 heavy bars.
4 cold chisels.
3 rail grabs.
2 claw bars.
1 track jack.
12 shovels.
4 spike hammers.
1 track wrench.
1 monkey wrench.
1 gauge.
1 pick.
1 grub hoe.

HOLWORTHY GATE HOUSE.

1 boat.
1 gun.
150 ft. hose.
3 lanterns.
1 pick.
4 gravel rakes.
3 shovels.
11 scufflers.
4 gate wrenches.
2 blow-off wrenches.
1 Stillson wrench.

STABLE, CONCORD AVENUE.

2 axes.
2 blankets.
2 old boats.
1 draw bar.
2 iron bars.
1 tip cart.
1 grain chest.
1 sod cutter.
1 oil covering.
1 curry comb and brush.
1 manure fork.
6 hay forks.
1 grind stone.
17 tons hay.
2 harnesses.
1 horse.
1 harrrow.
Hooks, rests, etc., for painters' staging.
1 wheel jack.
4 ladders.
1 large lantern.
Lot of fence timber.
3 malls.
1 mowing machine.
1 oil can.
2 measures.
2 edging knives.
4 picks.
1 draw shave.
1 grab harness.
4 rolls paper.
6 bundles shingles.
20 bundles clapboards.
2 pails.
4 plows.
2 force pumps.
1 snow plow.
1 paving rammer.
2 hay racks.
6 hay rakes.
2 hand rakes.
1 horse rake.
1 rope fall.
150 ft. rope.

3 post hole rammers.
1 post hole drill.
2 post hole scoops.
1 hand roller.
1 horse roller.
1 hay scales.
2 water spouts.
3 scythes and snaths.
2 shovels.
1 sled.
1 tedder.
1 platform wagon.
3 whippletrees.
1 monkey wrench.
1 wagon wrench.
1 2-in. anger.
1 floating hook.

Tools at Stony Brook Dam.

1 axe.
1 row-boat and oars.
1 iron bar.
2 chairs.
3000 lbs. of coal.
1 watering can.
5 steel drills.
2 hay forks.
1 grindstone.
2 pair grab hooks.
1 hoe.
2 grub hoes.
1 sledge hammer.
50 feet of hose.
1 sod knife.
1 ladder.
1 lantern.
1 ladle.
1 lead kettle.
1 horse mowing machine.
1 lawn mower.
1 pick.
2 piked poles.
2 lengths 36-in. pipe.
12 lengths 30-in. pipe.
40 feet of rope.
1 rope and fall.
2 steel rakes.
2 hay rakes.
2 30-in. sleeves.
1 stove and fixtures.
14 cast iron signs.
1 horse sled.
1 sickle.
2 scythes.
2 snaths.
1 tip cart and harness.
1 pair iron traces.
1 whippletree.
1 wheel-barrow.
2 gate wrenches.

REPORT

OF THE

ENGINEER OF THE PUMPING STATION.

PUMPING STATION, CAMBRIDGE WATER WORKS,
December 1, 1893.

Hiram Nevons, Esq., Superintendent:—

SIR: I would respectfully report the machinery at the pumping station in good condition. The old high-service engine has been thoroughly repaired and placed in the basement, was started on April 1, and ran during the month.

The new high-service engine has done the rest of the work for the high-service, having run 11 months, 24 hours each day.

The brick setting of the old boilers has been repaired and the furnaces of the same relined with fire brick.

No extensive repairs have been required on the low-service engines. Following will be found the usual statement and tables.

Respectfully submitted,

EDWIN C. BROOKS,
Engineer.

STATEMENT.

$715\frac{1}{2}\frac{8}{2}\frac{0}{4}\frac{0}{0}$ tons Cumberland coal, at $4.05	$2,899 00
$717\frac{1}{2}\frac{0}{2}\frac{2}{4}\frac{0}{0}$ tons Cumberland coal, at 4.50	3,228 55
Oil, waste, packing, etc.	209 27
Repairs on engines and boilers	425 93
Repairs on buildings and care of grounds	322 25
Tools	25 13
Lighting	12 05
Ice	20 00
Telephone	134 82
Expressing	4 65
Salaries	6,401 43
	$13,683 09

Engine Record, Pond Levels and Rainfall.

Date.	Low Service Engines.						High Service Engine.			Total water pumped.	Daily average water pumped.	Total coal consumed.	Daily average coal consumed.	Average height of pond.	Rainfall.
	Engine No. 1.			Engine No. 2.											
	Running time.		Water pumped.	Running time.		Water pumped.	Running time.		Water pumped.						
	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Gallons.	Gallons.	Lbs.	Lbs.	Feet.	Inches.
December, 1892.....				391	00	150,099,400	720	00	16,379,820	166,479,220	5,370,297	250,600	8,084	14.15	1.23
January, 1893.....	498	35	202,892,250				744	00	18,487,575	221,379,825	7,141,285	313,700	10,119	15.05	1.87
February, "	434	00	176,317,350				672	00	15,953,625	192,270,975	6,866,821	270,100	9,646	15.55	6.43
March, "				429	15	170,309,150	744	00	17,233,740	187,542,890	6,049,771	268,200	8,652	16.65	2.50
April, "				383	15	151,556,350	720	00	15,407,654	166,964,004	5,565,467	251,100	8,370	16.79	3.25
May, "	413	20	165,114,400				744	00	17,690,580	182,804,980	5,896,935	249,800	8,058	16.67	7.30
June, "	428	30	174,990,200				720	00	18,306,000	193,296,200	6,443,207	259,200	8,640	16.68	2.18
July, "				466	45	190,821,950	744	00	18,387,225	209,209,175	6,748,683	286,300	9,235	16.76	2.26
August, "				456	35	172,877,650	744	00	17,064,450	189,942,100	6,127,164	269,300	8,687	16.63	5.95
September, "	404	15	164,244,300				720	00	15,485,580	179,729,880	5,990,996	260,200	8,673	15.61	1.76
October, "	411	10	166,010,900				744	00	17,906,175	183,917,075	5,932,809	276,700	8,926	12.85	3.77
November, "				380	15	143,925,650	720	00	17,401,950	161,327,600	5,377,600	255,300	8,510	12.08	1.99
Total	2589	50	1,049,569,400	2507	05	979,590,150	8736	00	205,704,374	2,234,863,924		3,210,500			40.49
Daily average.....	7	06	2,875,533	6	52	2,683,809	23	56	563,574	6,122,915		8,796		15.45	

Stock on Hand, December 1, 1893.

494 tons Cumberland coal, 41 gallons cylinder oil, 31 gallons engine oil, 10 gallons kerosene, 5 lbs. cotton waste, 5 lbs. rubber packing, 40 lbs. Usidurian packing, 15 lbs. flax packing, 27 lbs. square flax packing, 7 manhole gaskets, ¼ quire emery cloth, 10 files, 9 gauge glasses, 30 lbs. soap, 1 broom, 75 fire bricks, 500 lbs. bolts and nuts, 1 lot brass pipe, 1 lot iron pipe, 1 lot pipe fittings.

Tools, Furniture and Instruments.

118-in.x10-ft. engine lathe, with chucks, tools, etc., 15-in.x6-in. engine, 1 lot shafting, pulleys and belting, 1 pipe threading machine, with dies, 1 grindstone, 1 emery wheel, 2 vises, 2 vise benches, 3 die plates and dies, 1 set pipe taps, 1 set hand taps, 2 pipe cutters, 14 pairs pipe tongs, 6 screw wrenches, 5 Stillson wrenches, 3 hammers, 1 copper hammer, 20 cold chisels, 1 hand bellows, 20 files, 2 clamps, 2 jackscrews, 2 ratchets, 30 drills, 1 breast drill, 6 steel bars, 2 soldering irons, 18 eye bolts, 4 cylinder head cranes, 75 starting bolts, 1 chain fall, 4 tackles, 2 ladles, 4 wooden horses, 1 oil cabinet, 1 set measures, 1 lot oil cans, 1 oil pump, 1 carpenter's bench and tools, 3 axes, 1 hatchet, 1 lot fire tools, 1 coal car, 14 scoop shovels, 2 wheelbarrows, 1 pair platform scales, 1 tube scraper, 1 forge, 1 anvil, 1 sledge, 6 pairs tongs, 2 hand chisels, 2 lawn mowers, 2 rakes, 1 spade, 1 weeder, 1 pick, 3 forks, 1 ice saw, 1 ice chisel, 4 ladders, 4 stepladders, 200 ft. 2-in. hose and pipe, 50 ft. ½-in. hose and pipe, 1 water cooler, 6 fire pails, 8 water pails, 1 window brush, 1 floor brush, 1 dust brush, 1 feather duster, 1 dust pan, 1 lot matting, 3 mats, 6 spittoons, 1 lot gas fixtures, 1 dynamo, 1 arc lamp, 4 bracket lamps, 1 lot incandescent lamps and fixtures, 2 lanterns, 3 hand lamps, 26 cells Julien storage battery, 1 desk, 2 tables, 12 chairs, 2 clocks, 1 barometer, 1 hygrophant, 1 thermometer, 1 indicator, 2 rain guages, 1 snow guage, 1 cot bed and bedding, 1 belt clamp, 1 Hancock inspirator, 1 lot belting.

REPORT

OF THE

CHIEF ENGINEER OF THE FIRE DEPARTMENT.

CHIEF ENGINEER'S OFFICE, CITY HALL,
CAMBRIDGE, December 26, 1893.

To His Honor the Mayor and the City Council: —

GENTLEMEN: In compliance with the provisions of Section 6 of the Ordinance governing the Fire Department, I have the honor to herewith present my fifteenth annual report.

Membership.

During the year there was added to the permanent force of this department a driver, and a man from the permanent force was assigned to take care of and drive the chief's wagon.

Five resignations of call men were accepted, and five were appointed to fill the vacancies.

The membership of the department, at the present time, consists of one hundred and seven men. Thirty-three are permanently employed, and seventy-four are call men. One of the latter acting as a substitute.

The discipline during the year has been good, and but one case has occurred to mar the good order maintained in the several companies.

Apparatus.

On the 27th day of October a contract was made with the LaFrance Fire Engine Co. of Elmira, N. Y., for one extra second-size "Hayes" extension ladder truck, to be equipped with an extension ladder to elevate 75 ft. from the ground; also one 45 ft. extension ladder, and six common ladders ranging in length from 14 ft. to 28 ft., and all other equipment usually carried on a ladder truck.

The apparatus of the department consisting of seven steam fire engines, one being used for relief purposes, one chemical engine, four hose wagons, two hose carriages, two ladder carriages, five fuel wagons, three hose pungs and the chief's wagon, is in good working condition, with the exception of the relief engine. This engine has been in the service for more than twenty-nine years. Its working parts are badly worn and the boiler is in a leaky condition. I do not think it would be advisable to lay out any money for repairs on this engine, and, as it is very important that we should have a reliable engine for relief purposes, I would recommend that it be disposed of and a new engine purchased.

It will be necessary to provide for the purchase of a chemical engine for the Lexington avenue district, the coming year.

Hose.

During the year, two hundred and fifty feet of two and one-half inch cotton rubber-lined hose was condemned, and seven hundred feet purchased. The total amount now in the service and in good condition is eleven thousand, seven hundred and fifty feet.

Water Supply.

The water supply has been largely improved during the year by the laying of larger pipes and the locating of hydrants. Forty-seven hydrants have been added, making the total number now available for fire purposes, eight hundred.

Horses.

Since my last report the hose-wagon horse at Engine House No. 3 was exchanged for a younger one, and two were bought for Ladder Carriage No. 2.

There are twenty-eight horses now in the service, and with but few exceptions they are in good condition and well suited for the work required of them.

Houses.

Engine Co. No. 3 moved from their old quarters on Fourth street to their new house on Third street, March 1. The

house is finely located, convenient and well ventilated, and a better arranged engine house would be hard to find.

The new double house on Front street, for the accommodation of Engine Co. No. 2 and the Aerial Ladder Truck, will soon be ready for occupancy; also the new house on Lexington avenue, for a chemical engine.

I desire to call your attention to the condition of Engine House No. 4, on North avenue. This house is inconvenient, poorly ventilated and dark. The light and air on the east side of the house having been entirely shut out by the building of the Henderson block, the quarters are thereby made very gloomy and disagreeable.

I am heartily in accord with the movement made this year to secure a new site for an engine house in that district, and hope the matter will meet with your approval.

I would also call your attention to the need of a wagon shed and coal bin at Engine House No. 5, Inman square, and of a slight alteration in the stable that will give better ventilation and more light.

Appropriation and Expenditures.

The appropriation for the maintenance of the department for the year ending November 30 was $61,800. The estimated revenue was $200, making a total appropriation of $62,000. The expenditures for all causes during the year have been $61,627.27, leaving an unexpended balance of $372.73.

The revenue for the year from the sale of old material and horse-keeping was $149.77.

Fires and Alarms.

The total number of fires and alarms during the year was two hundred and one, including forty-seven still alarms. There were also nine second and one third alarms given. Five alarms were given for fires out of the city, at three of which a portion of the department rendered assistance.

The losses by fire for the year, together with the insurance, and the amount of insurance paid, was as follows:—

	Loss.	Insurance.	Insurance Paid.
On buildings	$58,074 18	$248,075 00	$52,478 66
On contents	75,370 38	154,306 56	59,621 55
Total	$133,444 56	$402,381 56	$112,100 21

Casualties.

On Thursday, January 5, at 1.55 o'clock, a. m., the boarding stable of M. V. B. Langley, rear of 414 Main street, in which 19 horses were stalled, was discovered to be on fire by the watchman, Lewis P. Taylor. After going across the street and notifying Engine Co. No. 2 to that effect, he immediately returned, and in attempting to release the horses was overcome by heat and smoke. His remains were found on the floor of the stable after the fire was extinguished.

William F. Stearns, hoseman of Engine Co. No. 6, received severe injury to his finger by tearing the nail off, while working at a fire, May 8.

Andrew Burk, ladderman of Ladder Co. No. 2, had his foot severely injured by a ladder falling upon it, May 8.

Thomas Mimnaugh, driver of Ladder Truck No. 2, had his ankle badly strained while in the act of taking a ladder from the truck, May 8.

A building owned by the American Rubber Co., and used for storing cement which was made of naphtha and rubber, was discovered to be afire, on the night of May 11. It is supposed that Manuel Silva, an employé, went there to smoke, and ignited the naphtha gases, causing an explosion and fire. His dead body was discovered in the room by firemen.

Albert Brown was painfully burned on his face and hands while extinguishing a fire in his house No. 30 Tremont street, August 5.

Capt. William F. Newman of Engine Co. No. 3 received a severe cut on his head and sustained serious injury to his back and side by falling from the roof of a building while working at a fire, October 23.

Appointments and Discharges.

Engine Co. No. 1.—Albert L. Landerkin, hoseman, resigned March 20, and Walter E. Chapman was appointed to fill the vacancy May 2.

Engine Co. No. 4.—Edward A. Hurd, hoseman, resigned January 18, and William H. Barrow was appointed to fill the vacancy July 11.

Arthur C. Griffin, hoseman, resigned February 1.

Engine Co. No. 5.—George T. Messer, hoseman, resigned April 18, and George W. Montgomery was appointed to fill the vacancy May 2.

James M. Casey, assistant engineman, was assigned as chief's driver May 21.

Ladder Co. No. 2.—Thomas F. O'Connell, ladderman, was appointed a permanent driver May 16, and assigned to Engine Co. No. 5 as assistant engineman May 21.

Andrew Burk, ladderman, resigned June 1, and Patrick F. Dunlea and John J. Balfe were appointed to fill vacancies July 11.

Respectfully submitted,

THOMAS J. CASEY,
Chief Engineer.

APPENDIX.

ROLL OF OFFICERS AND MEMBERS.

Engineers.

Name.	Rank.	Age.	Residence.
Permanent Force.			
Thomas J. Casey.....	Chief Engineer.....	60	449 Cambridge street
Call Force.			
Nathaniel W. Bunker.....	Dist. Chief Engineer	50	42 Creighton street
Charles W. Brackett.....	" " "	57	133 Mt. Auburn street
William B. Cade.....	" " "	59	27 Park street

Engine Company No. 1.

House, Brattle Square.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
1	Edward E. Priest...	Engineman.....	56	96 Winthrop street
31	Daniel E. Powers....	Ass't Engineman..	34	7 Chapman place
2	Hiram W. Hooker	Driver of engine..	54	Engine house
26	John McCarthy.....	Driver of hose	43	5 Brewer street
	Call Force.			
28	Daniel E. Shea.....	Captain	37	54 Banks street
27	John L. Jones, Jr...	Lieutenant	42	209 Green street
25	James Jefferson	Hoseman.....	40	9 Eliot street
29	Thomas H. Kneeland	"	30	1 Brattle square
97	William H. Perry..	"	31	139 Mt. Auburn street
30	John W. Johnston..	"	23	23 Park street
23	J. Joseph Corcoran.	"	33	56 Plympton street
26	Walter E. Chapman.	"	26	52 Boylston street

Engine Company No. 2.

House, Main Street, near Winsor.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
4	Thomas Wiseman...	Engineman.....	49	416 Main street
80	John H. McDermott	Asst. Engineman..	43	11 Dodge street
5	John H. Walker....	Driver of engine...	64	85 Winsor street
6	Albert F. Sawyer....	" " hose.....	50	459 Main street
	Call Force.			
32	James Cunningham.	Captain	51	25 State street
33	Arthur C. Day.....	Lieutenant	56	47 Austin street
35	Benjamin D. Foss..	Hoseman	57	21 Cherry street
37	John Haley.....	"	39	413 Main street
39	Warren H. Dow.....	"	43	414 Main street
87	Charles A. Cairns...	"	27	402 Main street
88	Charles H. Cutting..	"	40	6 Harold place
40	John H. Kelly.....	"	25	16 Plymouth street

Engine Company No. 3.

House, Third Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
7	Hiram Blood.....	Engineman	61	40 Fifth street
41	William H. Cairns..	Asst. Engineman..	30	20 Fourth street
8	Peter F. McSorley...	Driver of engine..	34	33 Fourth street
9	Lorenzo H. Dale....	" " hose....	50	104 Otis street
	Call Force.			
43	William F. Newman.	Captain	47	42 Winter street
42	Walter Baker.....	Lieutenant	39	91 Gore street
45	Eliot E. Alley.....	Hoseman.....	57	73 Thorndike street
46	Timothy J. Mahoney	"	45	100 Vine street
48	John F. Brassell....	"	37	12 Warren street
49	Patrick J. Hayes....	"	30	92 Gore street
47	Exurie J. Wilmeth..	"	30	57 Spring street
44	Joseph J. Hopkins..	"	28	66 Otis street

Engine Company No. 4.

House, North Avenue, near Russell Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
10	John E. Ricker.....	Engineman.....	49	456 North avenue
55	Jeremiah O'Connor..	Asst. Engineman..	35	69 Spruce street
11	George E. Muzzey...	Driver of engine..	51	28 Russell street
12	Sylvanus G. Griffin..	Driver of hose....	46	456 North avenue
	Call Force.			
52	William J. Hanna...	Captain.....	47	20 Hubbard avenue
50	George F. Tibbetts..	Lieutenant	53	6 Beech street
56	Josiah P. Parsons...	Hoseman.....	45	17 Regent street
51	Daniel McCaughin..	"	33	Rear 5 Russell street
54	George F. Durgin ...	"	25	12 Regent street
57	Richard E. Hanna..	"	23	20 Hubbard avenue
58	William H. Barrow..	"	24	21 Jackson street

Engine Company No. 5.

House, Inman Square.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
13	Charles E. Connor...	Engineer.....	42	1337 Cambridge street
85	Thomas F. O'Connell	Driver.....	31	51 Ninth street
3	Charles R. Hooker...	Driver of engine..	48	7 Springfield street
68	James H. Furfey....	Driver of hose.....	36	248 Hampshire street
	Call Force.			
59	Francis P. Scanlan..	Captain.....	47	1343 Cambridge street
64	William T. King....	Lieutenant	37	Engine house
61	George W. McIntire.	Hoseman.....	39	70 Inman street
67	George P. Banister..	"	33	76 Norfolk street
66	James H. McGrath..	"	36	1072 Cambridge street
60	George W. Stevens..	"	27	44 Antrim street
104	Charles Barney.....	"	31	44 Antrim street
63	Geo. W. Montgomery	"	33	40 Hampshire street

Engine Company No. 6.

House, River Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
98	J. Lewis Howe	Engineman	40	184 River street
62	Charles A. Blair	Ass't Engineman	32	239 Hampshire street
38	Charles H. Chapman	Driver of engine	40	156 River street
34	William Parks	Driver of hose	49	208 River street
	Call Force.			
24	John H. Brown	Captain	42	206 River street
75	James P. Ewell	Lieutenant	57	56 Franklin street
100	John E. Savage	Hoseman	39	13 Dodge street
101	John H. Robbins	"	38	35 Brookline street
102	Melvin A. Priest	"	36	16 Fairmont street
103	William F. Stearns	"	28	431 Main street
94	George W. Butler	"	51	84 River street
73	Charles H. Waite	"	47	27 Pine street

Chemical Engine Company No. 1.

House, Western Avenue.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
17	Lewis C. Clark	Engineman	49	183 Green street
82	James T. McCabe	Ass't Engineman	31	8 Essex street
18	William Haley	Driver	45	117 Auburn street

Ladder Company No. 1.

House, Eliot Square.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
22	John T. McNamee..	Captain	38	49 Mt. Auburn street
19	Albert S. Benson ...	Driver.....	50	52 Boylston street
	Call Force.			
69	Charles Emerson....	Lieutenant	48	12 Avon place
76	Charles A. Sharon..	Ladderman.....	45	Rear 13 Pine street
78	William R. Mitchell.	"	40	77 Plympton street
74	James W. Irwin....	"	38	66 Boylston street
77	William Stolba.....	"	36	91 Western avenue
70	Thomas H. Donlan.	"	32	Ladder House No. 1
79	Edward P. Donohue	"	36	1 Willard street court
72	Joseph E. Burke....	"	30	7 Mill street
71	Williard H. Poole...	"	35	150 River street
65	Augustine B. Osborn	"	34	99 Mt. Auburn street
99	John H. Dardis.....	"	23	115½ Hampshire street
14	William H. Buchanan	"	25	9 Camden place

Ladder Company No. 2.

House, Portland Street.

No. of Badge.	Name.	Rank.	Age.	Residence.
	Permanent Force.			
21	Thomas L. Hunter..	Captain.....	53	83 Winsor street
20	Thomas Mimnaugh..	Driver	40	34 Warren street
	Call Force.			
81	James F. Dalton....	Lieutenant.....	54	17 Squires court
91	Lincoln E. Wheeler..	Ladderman	49	48 Cherry street
92	John Gaughan.....	"	51	25 Ninth street
90	Albert Smith.....	"	39	3 Suffolk street
84	John B. Maguire....	"	34	148 Bridge street
95	Louis J. Stanger....	"	37	57 Vine street
96	Louis J. Anshelm...	"	33	187 Broadway
86	James H. Skehan...	"	23	4 Washington street
93	George A. Garrity...	"	32	1 Loughrey avenue
15	Patrick F. Dunlea...	"	32	331 Vine street
89	John J. Balfe.....	"	22	34 Porter street
83	James M. Casey	Chief Driver.....	29	775 Cambridge street

FIRES AND ALARMS.

From December 1, 1892, to December 1, 1893.

DECEMBER.

Sunday, Dec. 4, 5.56 a. m. Box 59.

Dunster street. Owned and occupied by the A. D. Club as club house. No loss. Cause, soot in chimney taking fire.

Sunday, Dec. 4, 9.15 p. m. Still.

No. 92 Line street, Somerville. Engine Co. No. 5 rendered assistance.

Tuesday, Dec. 6, 3.38 a. m. Box 32.

No. 1046 Cambridge street. Owned by Fanny Frankenstein. Loss $200. Insurance, $3,000. Occupied by W. L. Frankenstein, as a dry goods store. Loss, $1,150. Insurance, $3,000. Originated in the ceiling. Cause, heat from a lighted hanging lamp.

Thursday, Dec. 8, 8.23 p. m. Still.

No. 45 Houghton street, Somerville. Engine Co. No. 5 called.

Friday, Dec. 9, 5.05 a. m. Still.

No. 39 Williams street. Owned by J. H. Holmes, heirs. Occupied by Mrs. J. H. Holmes as dwelling. Loss trifling. Originated in waste paper. Cause, unknown.

Sunday, Dec. 11, 8.04 p. m. Box 36.

Main street. Cause, smoke mistaken for fire.

Sunday, Dec. 18, 5.35 p. m. Still.

3.0 Freight yard, Boston & Albany R. R. Car of hay, owned by Plumer & Co. Loss, $20. No insurance. Cause, incendiary.

Monday, Dec. 19, 6.27 p. m. Box 2.

Freight yard, Boston & Maine R. R., Southern Division. Occupied as freight car. Loss trifling. Originated in the roof. Cause, overheated stove pipe.

Tuesday, Dec. 20, 5.52 p. m. Box 134.

Hampshire street. Owned by City of Cambridge. Loss, $810. No insurance. Occupied by City of Cambridge as stone crusher and engine room. Loss $190. Supposed cause, electric light wires.

Thursday, Dec. 22, 5.45 a. m. Box 9.

No. 99 Bridge street. Owned by Boston & Lowell R. R. Co. Occupied by G. C. Emerson as wood yard. Loss trifling. Cause, sparks from chimney.

Thursday, Dec. 22, 6.50 p. m. Still.

No. 215 River street. Owned and occupied by F. T. Richardson as dwelling. Loss trifling. Originated on the roof. Cause, sparks from chimney.

Saturday, Dec. 24, 4.49 p. m. Box 14.

No. 135 Otis street. Owned by Bela Bartlett, heirs. Occupied by John Lindblom as dwelling. No loss. Cause, defective flue.

Saturday, Dec. 24, 8.59 p. m. Box 27.

No. 85 Bristol street. Owned by Samuel Saunders, heirs. Occupied as dwelling. No loss. Cause, thawing out water pipe.

Sunday, Dec. 25, 4.35 a. m. Box 65.

No. 9 Shepard street. Owned by S. N. Hall. Loss, $800. Insurance, $3000. Occupied by H. W. Torrey as dwelling. Loss, $50. No insurance. Cause, overheated furnace pipes.

Sunday, Dec. 25, 9.02 a. m. Box 65.

No. 9 Shepard street. Cause, rekindling of fire.

Sunday, Dec. 25, 12.02 p. m. Box 16.

No. 23 Harvard street. Owned by P. F. Rourke. Loss, $200. Insurance, $2,000. Occupied by P. F. Rourke as grocery. Loss, $287. Insurance, $1,000. Originated in the office. Cause, unknown.

Sunday, Dec. 25, 4.27 p. m. Box 64.

No. 13 Follen street. Owned by Episcopal Society. Occupied by R. L. Sanderson as dwelling. No loss. Cause, soot in chimney taking fire.

Monday, Dec. 26, 1—1.09 a. m. Box 75.

No. 81 Washington avenue. Owned by N. L. Arey. Loss, $2,600. Insurance, $2,000. Occupied by N. L. Arey as stable. Loss, $617. Insurance, $1,500.

No. 81 Washington avenue. Owned and occupied by N. L. Arey as dwelling. Loss, $230. Insurance, $10,000.

No. 3 Avon place. Owned by Sullivan Niles. Loss, $65. Insurance, $5,000. Occupied by F. L. Munroe as dwelling. Originated in stable. Cause, unknown.

JANUARY.

Sunday. Jan. 1, 1.10 p. m. Still.

Eliot street. Cause, burning rubbish.

Sunday, Jan. 1, 6.20 p. m. Still.

No. 48 Boylston street. E. C. Allen. Loss, $20. Insurance, $2000. Occupied by G. W. Prescott as dwelling. Loss, $25. Insurance, $800. Cause, explosion of kerosene lamp.

Wednesday, January 4, 3.34 p. m. Box 17.

No. 84 Harvard street. Owned by Samuel Snow. Occupied by Eliza Wilson as dwelling. Loss trifling. Cause, clothes hanging near stove taking fire.

Thursday, Jan. 5, 1.55 a. m. Box 26.

Rear No. 414 Main street. Owned by M. S. Dow. Loss, $500. No insurance. Occupied by M. V. B. Langley and others as stable. Loss, $2,865. Insurance, $4,115. Cause, unknown.

Thursday, Jan. 5, 3.37 a. m. Box 26.

No. 368 Main street. Owned by Allen & Endicott Building Co. Loss, $52. Insurance, $9,900. Occupied by Harvard Piano Co. Originated in shaving blower. Cause, unknown.

Saturday, Jan. 7, 5.55 p. m. Box 87.

New street. Owned and occupied by M. J. De Lorie as stable. Loss, $60. Insurance, $200. Cause, unknown.

Thursday, Jan. 12, 7.43 a. m. Box 41.

No. 30 Prince street. Owned by D. J. McArthur. Occupied by W. W. Smith as dwelling. Loss trifling. Cause, thawing out water pipe.

Thursday, Jan. 12, 11.32 a. m. Box 9.

No. 31 Second street. Owned and occupied by J. L. Wyzanski as dwelling. Loss trifling. Cause thawing out water pipe.

Thursday, Jan. 12, 8.43—8.55 p. m. Box 28.

Broadway. Owned by Lysander Kemp & Son. Loss, $3,550. Insurance, $6,000. Occupied by Lysander Kemp & Son as soap manufactory. Loss, $6,000. Insurance, $4,700. Originated near boiler. Cause, unknown.

Friday, Jan. 13, 5.57 p. m. Box 153.

De Wolf street. Owned by Hugh Rowe estate. Occupied by P. J. Rowe as variety store. Loss trifling. Cause, dropping of a lighted match into oil.

Saturday, Jan. 14, 11. 14 a. m. Box 29.

No. 59 Hampshire street. Owned by Timothy Caughlin. Loss, $110. Insurance, $2,000. Occupied by J. H. Sweeney as dwelling. Loss trifling. Cause, thawing out water pipe.

Saturday, Jan. 14, 3.34 p. m. Box 35.

No. 2 Percy place. Owned by W. B. Brigham. Loss, $350. Insurance, $2,000. Occupied by J. A. Crawford as dwelling. Loss trifling. Cause, thawing out water pipe.

Saturday, Jan. 14, 4.18 p. m. Box 26.

No. 368 Main street. Owned by Allen & Endicott Building Co. Occupied by Harvard Piano Co. as boiler room. No loss. Cause, shavings taking fire.

Sunday, Jan. 15, 10.08 p. m. Box 89.

Rear Wellington street. Owned by John Bogge. Loss, $865. Insurance, $900. Occupied by John Bogge as sausage manufactory. Loss, $300. Insurance, $500. Owned by John Bogge. Loss, $1,375. Insurance, $1,500. Occupied by John Bogge as dwelling. Loss trifling. Cause, supposed incendiary.

Wednesday, Jan. 18, 12.53 p. m. Box 47.

No. 356 Broadway. Owned by Minnie Lane. Loss, $40. Insurance, $2,000. Occupied by W. H. Cutler as dwelling. Cause, paper in chimney flue taking fire.

Thursday, Jan. 19, 9.26 a. m. Box 46.

No. 8 Dana street. Owned and occupied by J. S. Paine as dwelling. Loss trifling. Cause, escaping gas taking fire.

Wednesday, Jan. 25, 4.09 a. m. Box 25.

No. 436 Main street. Owned and occupied by Thomas Smith as horseshoer. Loss trifling. Cause supposed, hot iron.

Wednesday, Jan. 25, 9.28 a. m. Box 36.

No. 88 Franklin street. Owned and occupied by M. C. Normoile as dwelling. Loss, $30. Insurance, $2,000. Originated near stove. Cause, unknown.

FEBRUARY.

Wednesday, Feb. 1, 7.46 p. m. Box 54.

No. 472 Broadway. Owned and occupied by W. R. Ellis as dwelling. Loss, $125. Insurance, $7,000. Cause, overheated furnace.

Friday, Feb. 3, 11.25 p. m. Still.

First street. Cause, burning rubbish on dump.

Sunday, Feb. 5, 10.15 a. m. Still.

Bridge street. Owned by J. P. Squire as unoccupied stable. No loss. Cause, set on fire by boys.

Tuesday, Feb. 7, 4.21 a. m. Box 242.

Blackstone street. Cause, fire burning under a tar kettle.

Tuesday, Feb. 7, 9.50 a. m. Box 4.

No. 169 Gore street. J. P. Squire & Co's. pork packing establishment. Cause, accidental auxiliary alarm.

Tuesday, Feb. 7, 10.55 a. m. Still.

No. 113 Tremont street. Owned by A. W. Blake. Occupied by Thomas Barker as dwelling. No loss. Cause, wood in stove oven taking fire.

Thursday, Feb. 9, 4.12 p. m. Box 14.

No. 585 Cambridge street. Owned by T. H. Pickles. Loss, $125. Insurance, $150. Occupied by T. H. Pickles, as photographer's car. Loss, $75. Insurance, $150. Cause, ignition of bottle of ether.

Thursday, Feb. 9, 8.44 p. m. Box 32.

Winsor street. Fire in Somerville. Tin manufactory.

Friday, Feb. 10, 10.39 p. m. Box 29.

Webster avenue. Cause, false alarm given by some malicious person.

Friday, Feb. 10, 10.56 p. m. Box 28.

Mechanic square. Cause, false alarm given by some malicious person.

Saturday, Feb. 11, 5 p. m. Still.

Bridge street. Owned by J. P. Squire as unoccupied stable. No loss. Cause, set on fire by boys.

Sunday, Feb. 12, 10.25 a. m. Still.

Bridge street. Owned by J. P. Squire as unoccupied stable. No loss. Cause, set on fire by boys.

Sunday, Feb. 12, 11.50 a. m. Box 74.

No. 136 Dublin street. Owned by Robert Wales. Loss, $120. Insurance, $450. Occupied by Robert Wales as variety store. Loss, $150. Insurance, $700. Originated on outside of building. Cause, unknown.

Monday, Feb. 13, 2.30 p. m. Still.

Otis street. Irvin & Casson furniture manufactory. Cause, accidental automatic alarm.

Friday, Feb. 17, 7.16 p. m. Box 69.

Haskell street. Cause, smoke mistaken for fire.

Friday, Feb. 17, 8.01 p. m. Box 25.

No. 521 Main street. Owned by D. A. Buckley. Occupied by R. N. Burnes as furniture store. Loss, $71. Insurance, $1,750. Originated in bed-clothes. Cause supposed, a lighted cigar stub.

Saturday, Feb. 18, 7.30 a. m. Still.

No. 22 Pleasant street. Owned by G. D. Chamberlain. Occupied by C. F. Hunnewell as dwelling. Loss trifling. Originated in a child's crib. Cause, child and matches.

Tuesday, Feb. 21, 1.20 p. m. Box 26.

No. 5 Holly street. Owned by E. D. Brooks. Occupied by Louis Alary as dwelling. Loss trifling. Originated in clothes hanging near stove. Cause, unknown.

Wednesday, Feb. 22, 8.24 a. m. Box 47.

No. 347 Broadway. Owned by Catherine Barry. Loss, $200. Insurance, $1000. Occupied by C. D. Hodgson as dwelling. Loss, $133. Insurance, $1000. Originated in wood box near stove. Cause, unknown.

Sunday, Feb. 26, 2.01 p. m. Box 12.

No. 221 Bridge street. Owned by Brooks estate. Loss, $600. Insurance, $1,000. Occupied by L. G. Burnham & Co., as wood shed, office and stable. Loss, $2700. Insurance, $6000. Originated in woodshed. Cause, overheated smoke stack.

MARCH.

Sunday, Mar. 5, 5.19, 5.23, 5.26 a. m. Box 36.

No. 619–627 Main street. Owned by J. D. W. Joy. Loss, $9,700. Insurance, $30,000. No. 619 occupied by First National Bank. Loss, $130. Insurance, $1500. No. 621 occupied by Yerxa & Yerxa as grocery. Loss, $3200.

Insurance, $7500. No. 623 occupied by John Mahady as office. Loss, $500. No insurance. Occupied by J. W. McCann for storage of furniture. Loss, $600. Insurance, $600. Occupied by E. J. Mills as dwelling. Loss, $100. No insurance. Occupied by E. F. Bowker as surveyor. Loss, $568. Insurance, $1000. Occupied by A. C. Russell as dressmaker. Loss, $825. Insurance, $1000. Occupied by J. K. McKenzie for storage of furniture. Loss, $800. No insurance. Occupied by J. F. Facey as printing office. Loss, $1800. Insurance, $2,060. No. 625 occupied by F. A. White as hardware store. Loss, $1000. Insurance, $5000. No. 627 occupied by Julius Meyers as cigar store and billiard room. Loss, $2500. Insurance, $3500. Originated on third floor. Cause, unknown.

Thursday, Mar. 9, 12.22 p. m. Box 136.

No. 563 Main street. Owned by Lamson heirs. Occupied as stores and offices. No loss. Originated in a closet on second floor entry. Cause, incendiary.

Friday, Mar. 10, 5.03 p. m. Box 6.

Fire in Boston. Assistance called for. Engine Cos. Nos. 5 and 6 answered.

Saturday, Mar. 11, 5.28 p. m. Box 36.

No. 623 Main street. Owned by J. D. W. Joy. Unoccupied. No. loss. Originated amongst old papers on second floor. Cause, unknown.

Saturday, Mar. 11, 6.12 p. m. Box 36.

No. 640 Main street. Owned by R. C. Dana. Occupied by S. C. Higgins as plumber. No loss. Originated on outside of building. Cause, hot ashes.

Wednesday, Mar. 15, 3.12 a. m. Box 153.

No. 13 Mill street. Owned by Edwin Dwyer. Loss, $480. Insurance, $600. Occupied by Thomas Cummiskey as provision store. Loss, $362. Insurance, $650. Cause, unknown.

Thursday, Mar. 16, 8.47 a. m. Box 56.

No. 50 Kirkland street. Owned by Una L. Wilson. Loss, $381. Insurance, $5000. Occupied by Una L. Wilson as dwelling. Loss, $200. No insurance. Originated in cellar. Cause supposed, the dropping of a lighted match amongst paper.

Thursday, Mar. 16, 2.44 p. m. Box 76.

No. 33 Washington avenue. Owned and occupied by James Mellen as dwelling. Cause, smoke mistaken for fire.

Saturday, Mar. 18, 8.45 a. m. Still.

No. 81 Murray street. Owned by J. M. Hilton. Loss, trifling. Occupied by John Harris as dwelling. Originated on roof. Cause, sparks.

Monday, Mar. 20, 4.45 p. m. Box 24.

No. 141 Hamilton street. Owned by Patrick McNamara. Loss, $200. Insurance, $3000. Occupied by Mary Goodsell as dwelling. Loss, trifling. Cause, defective flue.

Wednesday, Mar. 22, 10.55 p. m. Box 15.

No. 118 Spring street. Owned by A. F. Gurney. Loss, $23. Insurance, $1500. Occupied by J. H. Galligher as dwelling. Loss, $31. Insurance, $500. Originated in bedroom. Cause, child and matches.

Wednesday, Mar. 22, 9.54 p. m. Box 48.

No. 1248 Cambridge street. Owned by John Cahill. Occupied by J. F. Cahill, apothecary. Loss, trifling. Originated in the cellar. Cause, dropping of lighted match into straw.

Tuesday, Mar. 28, 10.55 a. m. Still.

No. 432 Main street. Owned by H. B. Fisk. Occupied by Rowe & Ward as provision store. No loss. Originated in the cellar. Cause, unknown.

Wednesday, Mar. 29, 3.22 p. m. Box 12.

No. 59 North street. Owned by J. H. Jordan. Occupied by Michael Burns as dwelling. No loss. Cause, wood in stove oven taking fire.

Friday, Mar. 31, 10 a. m. Still.

Cambridge street. Cause, burning grass.

APRIL.

Sunday, April 2, 10.18 p. m. Box 68.

Richdale avenue. Burning rubbish igniting fence. Cause, unknown.

Tuesday, April 4, 4.11 a.m. Box 152.

No. 20 Quincy street. Owned by Colonial Club. Loss, $1,900. Insurance, $20,000. Occupied by Colonial Club. Loss, $997. Insurance, $15,000. Originated in first floor. Cause, overheated furnace pipes.

Thursday, April 6, 5.58 p. m. Box 16.

Sixth street. Owned and occupied by James Maitland as blacksmith. Loss, $100. No insurance. Cause, hot coals from forge.

Wednesday, April 12, 9.25 a. m. Box 78.

No. 118 Concord avenue. Owned by Gilbert Pellaquin. Loss, $222. Insurance, $900. Occupied by Joseph Broussard as dwelling. Loss, $156. Insurance, $700. Originated in clothes closet. Cause, unknown.

Friday, April 14, 6 p. m. Still.

Otis street. Irving & Casson's furniture manufactory. Cause, Accidental Automatic Alarm.

Tuesday, April 18, 4.57 p. m. Box 83.

No. 179 Brattle street. Owned by W. T. Piper. Loss, $102. Insurance, $10,000. Occupied by W. T. Piper as dwelling. Loss, $60. Insurance, $10,000. Cause, gas jet setting fire to drapery.

Wednesday, April 19, 7 p. m. Still.

First street. Cause, rubbish burning on dump.

Thursday, April 20, 1.46 p. m. Box 152.

Ware street. Cause, overboiling of kettle of tar.

Friday, April 21, 4.22 p. m. Box 134.

No. 28 Tremont street. Cause, smoke mistaken for fire.

Friday, April 21, 9.48 p. m. Box 14.

No. 139 Gore street. Cause, smoke mistaken for fire.

Saturday, April 29, 11.57 p. m. Box 72.

Dudley street. Owned by Clark estate. Loss, $1,250. Insurance, $1,125. Occupied by Cambridge Brass Co. Loss, $1,563. Insurance, $10,000. Originated in foundry. Cause, unknown.

Sunday, April 30, 3.07 a. m. Box 271.

Dudley street. Cause, rekindling of fire. Alarm needless.

MAY.

Wednesday, May 3, 10.45 a. m. Box 41.

No. 141 Pleasant street. Owned by Lucy Terrill. Loss, $57. Insurance, $800. Occupied by Lucy Terrill as dwelling. Loss, trifling. Originated in a bedroom. Cause, child and matches.

Wednesday, May 3, 10.48 p. m. Box 59.

No. 1 Harvard square. Cause, electric light wires setting fire to a sign.

Sunday, May 7, 12.45 p. m. Still.

No. 33 Inman street. Owned by M. H. Trewargy. Occupied by M. E. Ramsdell as dwelling. Loss, trifling. Originated in a bureau drawer. Cause, child and matches.

Monday, May 8, 8.41 p. m. Box 27.

No. 154 Harvard street. Owned by George Bird. Loss, $60. Insurance, $1,500. Occupied by W. L. Whitaker as grocery. Loss, $180. Insurance, $2,500. Cause, unknown.

Tuesday, May 9, 4.51 p. m. Box 271.

Boston & Maine R. R. Owned and occupied by Boston & Maine R. R. Co. as hand car house. No loss. Originated on roof. Cause, sparks.

Tuesday, May 9, 8 p. m. Still.

Murray street. Cause, burning of rubbish on dump.

Wednesday, May 10, 8.53 a. m. Still.

No. 6 Pearl street. Owned by C. E. Watson. Occupied by James Brown as dye house. Loss, trifling. Cause, ignition of Naphtha.

Wednesday, May 10, 11.27–11.44 p. m. Box 27.

Nos. 243–245 Broadway. Owned by George Close. Loss, $1,434. Insurance, $10,000. Occupied by George Close as confectioner. Loss, $5,482. Insurance, $17,000. Cause, unknown.

Thursday, May 11, 11.25 a. m. Still.

Murray street. Owned by J. M. Hilton. Loss, trifling. Unoccupied dwelling. Originated on outside of building. Cause, burning rubbish.

Thursday, May 11, 7.45 p. m. Box 28.

Ninth street. Owned by American Rubber Co. Loss, $100. Insurance, none claimed. Occupied by American Rubber Co. as naphtha room. Loss, $175. Insured, none claimed. Cause, unknown.

Friday, May 12, 1.15 p. m. Box 27.

No. 134 Clark street. Owned by Newmarch estate. Occupied by Amos Umberhand as plumber. No loss. Cause, ignition of naphtha lamp.

Monday, May 15, 7.22 a. m. Box 37.

No. 25 Pleasant street. Owned by R. L. Cunio. Loss, $65. Insured, $1,000. Occupied by R. T. Hodgson as dwelling. Loss, $74. Insurance, $600. Originated in wood box near the stove. Cause. unknown.

Wednesday, May 17, 1.41 p. m. Box 28.

Boston & Albany R. R. Owned by Boston & Albany R. R. Co. as bridge. No loss. Cause, sparks from burning rubbish setting fire to planking.

Friday, May 19, 3.58 a. m. Box 41.

No. 335 Putnam avenue. Owned by Daniel Bartlett. Loss, $800. Insurance, $1,800. Occupied by Daniel Bartlett as pottery. Loss, $800, Insurance, $3,200. Originated in kiln room. Cause, unknown.

Saturday, May 20, 11.8 p. m. Box 34.

No. 142 Columbia street. Owned and occupied by Philip Rady as dwelling. Loss, trifling. Cause, rats and matches.

Sunday, May 21, 7.50 a. m. Box 62.

No. 14 Dinsmore court. Owned by J. F. O'Brien. Loss, $37. Insurance, $500. Occupied by William Hogarty as dwelling. Loss, trifling. Originated in a bedroom. Cause, unknown.

Sunday, May 21, 5.52 p. m. Box 8.

No. 105 Second street. Owned by Manuel Sears. Occupied by Antonio Zefreno as dwelling. Loss trifling. Cause, lighted candle setting fire to decorations.

Wednesday, May 24, 4.45 p. m. Still.

Blackstone street, Riverside Press. Cause, accidental automatic alarm.

Thursday, May 25, 3.26 p. m. Box 10.

No. 90 First street. Owned by J. F. Scully. Loss, $30. Insurance, $1,500. Occupied by several families as dwellings. Originated on the roof. Cause, sparks.

Saturday, May 27, 11.49 a. m. Box 16.

No. 91 Broadway. Owned and occupied by Coleman Bros., as engine-room. Loss, trifling. Originated in the roof. Cause, overheated smoke stack.

Monday, May 29, 3.39 a. m. Box 37.

No. 34 Pleasant street. Owned by R. M. Ross heirs. Loss, $30. Insurance, $1000. Occupied by C. T. Richardson as dwelling. Loss, $90. Insurance, $800. Originated in a closet. Cause, unknown.

Monday, May 29, 9.15 p. m. Box 2.

Bridge street. Owned and occupied by Chas. Linehan as stable. Cause, careless use of matches.

Tuesday, May 30, 6.15 p. m. Still.

Richdale avenue. Cause, burning rubbish on dump.

JUNE.

Sunday, June 4, 3.22 a. m. Box 14.

No. 140 Otis street. Owned by W. V. Thompson. Occupied by Catherine Canty as dwelling. Loss, $15. Insurance, $1000. Originated in a bedroom. Cause, smoking in bed.

Monday, June 5, 7.30 a. m. Still.

No. 40 Green street. The New York Biscuit Co's Bakery. Cause, accidental automatic alarm.

Wednesday, June 7, 10.15 p. m. Still.

Central square. Night lunch wagon, Loss, trifling. Cause, kerosene stove taking fire.

Friday, June 9, 1.08 a. m. Box 54.

No. 16 Oxford street. Owned by M. C. Haskins. Loss, $100. Insurance, $100. Occupied by C. G. Bradt as stable. Loss, $20. No insurance. Owned by M. C. Haskins. Loss, $600. Insurance, $8000. Occupied by C. G. Bradt as dwelllng. Loss, $80. No insurance. Originated in stable. Cause, incendiary.

Friday, June 9, 3.18 p. m. Box 35.

No. 284 Broadway. Cause, hot ashes igniting fence.

Wednesday, June 14, 4.10 a. m. Still.

Harvard Bridge. Loss, trifling. Cause, electric light wires setting fire to planking.

Friday, June 16, 1.40 p. m. Still.

No. 37 Essex street. Owned by Mrs. John Dudley. Occupied by G. F. Hazelwood as dwelling. Loss, trifling. Originated on roof. Cause, sparks.

Friday, June 16, 11.17 p. m. Box 28.

No. 1 Webster avenue. Owned and occupied by John McGuirk as stable. No loss. Originated on outside of building. Cause, fire crackers.

Sunday, June 18, 4.35 p. m. Still.

No. 990 Cambridge street. Owned by Elizabeth Doyle. Occupied by Raffaele Vesce as bakery. Loss, trifling. Originated on roof. Cause, sparks.

Tuesday, June 20, 2.03 p. m. Box 14.

Bacon court. Owned by J. P. Squire estate. Loss, $25. No insurance. Occupied by W. J. Ryan as stable. Originated on outside of building. Cause, children and matches.

Tuesday, June 20, 7.30 p. m. Box 10.

Thorndike street. D. C. Storr's furniture manufactory. Cause, smoke mistaken for fire.

Friday, June 23, 3.32 p. m. Box 7.

No. 244 Third street. Owned by Patrick Conlan as dwelling. Cause, soot in chimney taking fire.

Tuesday, June 27, 7.20 p. m. Still.

No. 63 1-2 Western avenue. Owned by S. L. Montague as dwelling. Cause, soot in chimney taking fire.

JULY.

Saturday, July 1, 10.16 p. m. Box 27.

No. 15 Clark street. Owned by Joseph McIntire. Occupied by Thomas Hawkins as dwelling. Loss, trifling. Cause, kerosene stove taking fire.

Sunday, July 2, 10.55 a. m. Still.

No. 320 Green street. Owned and occupied by J. J. Whalen as dwelling. No loss. Cause, defective flue.

Tuesday, July 4, 11.19 a. m. Box 17.

No. 25 Portland street. Owned by Mary Norris. Loss, $7. Insurance, $1000. Occupied by W. H. Miller as dwelling. Originated on roof. Cause, fire crackers.

Tuesday, July 4, 9.15 a. m. Still.

Murray street. Owned by J. M. Hilton as stable. Loss, trifling. Originated on outside of building. Cause, fire crackers.

Tuesday, July 4, 10.05 a. m. Still.

Murray street. Owned by J. M. Hilton as stable. Loss, trifling. Cause, fire crackers.

Tuesday, July 4, 10.45 a. m. Still.

Murray street. Owned by J. M. Hilton. Loss, trifling. Occupied by several families as dwellings. Originated on the roof. Cause, fire crackers.

Tuesday. July 4, 1.35 p. m. Still.

No. 745 Cambridge street. Owned by John Nixon. Loss, $72. Insurance, $3000. Occupied by several parties as a grocery and dwellings. No loss. Originated in an awning. Cause, fire crackers.

Tuesday, July 4, 8.50 p. m. Box 134.

No. 125 Norfolk street. Owned and occupied by Joseph Hawks as dwelling. Loss, trifling. Originated on the roof. Cause, fireworks.

Tuesday, July 4, 9.36 p. m. Box 52.

No. 392 Green street. Owned by Peter Claussen. Loss, $22. Insurance, $3,000. Occupied by John Cusick as dwelling. Originated on roof. Cause, fireworks.

Tuesday, July 4, 9.41 p. m. Box 14.

No. 56 Sixth street. Owned by Sherriff heirs. Loss, trifling. Occupied by H. S. Starr as dwelling. Originated on the roof. Cause, fireworks.

Tuesday, July 4, 9.59. p. m. Box 27.

No. 173 Harvard street. Owned by Samuel Palmer estate. Occupied by Samuel McCullough as dwelling. Loss, trifling. Originated on the roof. Cause, fireworks.

Wednesday, July 5, 10.05 a. m. Box 31.

Fire in Somerville. Putney's bacon works.

Sunday, July 9, 2.33 p. m. Box 2.

Prison Point street. Owned and occupied by Boston & Maine R. R. Co. as sand-shed. Loss trifling. Originated on outside of building. Cause, ignition of oiled waste.

Tuesday, July 11, 10.50–10.55 a. m. Box 9.

Nos. 4 to 8 Gore street. No. 4. Owned and occupied by T. J. Wiseman as dwelling. Loss, $65. Insurance, $3,800. No. 6. Owned by Aylward heirs. Loss, $350. Insurance, $2,700. Occupied by Dennis Harrington as dwelling. Loss, $50. No insuranee. Owned by Aylward heirs. Loss, $300. Insurance, $300. Occupied by T. J. Wiseman as stable. Loss, $14. No insurance. No. 8. Owned by Fitzpatrick heirs. Loss, $345. Insurance, $900. Occupied by Catherine Callahan as dwelling. Loss, $100. No insurance.

Nos. 123 and 135 Cambridge street. No. 123. Owned by Mrs. Samuel Walker. Loss, $100. Insurance, $2,000. Occupied by J. R. Spaulding as dwelling. No. 135. Owned and occupied by H. M. Flynn as stable. Loss, $50. Insurance, $500. Owned and occupied by H. M. Flynn as dwelling. Loss, $100. Insurance, $4,500. Originated in stable No. 6 Gore street. Cause, children and matches.

Thursday, July 13, 9.30 a. m. Box 9.

No. 3 First street. Owned by S. B. Buck. Loss, trifling. Occupied by several families as dwellings. Cause, defective flue.

Thursday, July 13, 4.54 p. m. Box 134.

No. 140 Hampshire street. Owner W. T. Willey trustee. Occupied by Mary Bratt as dwelling. No loss. Cause, soot in chimney taking fire.

Friday, July 14, 11.31 a. m. Box 63.

No. 23 Hawthorn street. Owned and occupied by J. K. Paine as dwelling. Loss, trifling. Originated in steps on outside of building, Cause, unknown.

Saturday, July 15, 2.02 a. m. Box 89.

Rear Concord avenue. Owned by Parry Bros. & Co. Loss, $4,000. Insurance, $2,300. Occupied by Parry Bros. & Co. as brick manufactory. Loss, $7,500. Insurance, $4,700. Owned by Fitchburg R. R. Co. as Freight cars. Loss, $689. Insurance, $750. Cause, overheated furnace.

Sunday, July 16, 5.21 a. m. Box 121.

Brookline street. Cause, burning rubbish igniting bulkhead.

Tuesday, July 18, 7.04 p. m. Box 15.

No. 92 Sixth street. Owned by C. W. Munroe. Occupied by James Seery as dwelling. No loss. Cause, soot in chimney taking fire.

Thursday, July 20, 11.15 p. m. Still.

Boston & Albany R. R.. Car of lumber owned by Geo. G. Page Box Co. Loss trifling. Cause, incendiary.

Monday, July 24, 3.02 p. m. Box 26.

State street. Owned and occupied by M. E. Rideout as planing mill. Loss trifling. Originated in shaving blower. Cause, unknown.

Wednesday, July 26, 10.55 p. m. Box 24.

Boston & Albany R. R. Car of lumber. Owned by C. L. Page & Co. Loss, $130. No insurance. Cause, incendiary.

Thursday, July 27, 5.29 p. m. Box 16.

No. 70 Broadway. Owned by Catherine Tobin. Loss trifling. Occupied by Arthur Hazen as dwelling. Originated on the roof. Cause, sparks.

Friday, July 28, 6.49 a. m. Box 32.

No. 180 Columbia street. Owned by D. R. Sortwell. Loss, $20. No insurance. Occupied by H. W. Goodwin as dwelling. Cause, kerosene stove taking fire.

Sunday, July 30, 2.43 a. m. Box 17.

No. 25 Brewery street. Owned by M. A. Scudder. Loss, $800. Insurance, $1,500. Occupied by Stephen Philpot as variety store. Loss, $72. Insurance, $400. Occupied by several families as dwellings. Loss, $100. No insurance. Originated in the store. Cause, unknown.

AUGUST.

Wednesday, Aug. 2, 2.57 p. m. Box 126.

No. 127 Cherry street. Owned by A. C. Lamson. Loss trifling. Occupied as dwelling. Originated in the basement amongst excelsior. Cause, children and matches.

Saturday, Aug. 5, 6.16 p. m. Box 134.

No. 30 Tremont street. Owned by G. C. Neale, trustee. Occupied by Albert Brown as dwelling. No loss. Cause, ignition of boiling liquid chemicals.

Wednesday, Aug. 9, 5.45 a. m. Box 28.

No. 34 Hampshire street. Owned by G. M. Rogers estate. Loss, $125. Insurance, $2,500. Occupied by Dennis Mahoney as dwelling. Loss, $80. Insurance, $1,000. Originated in bed-rooms on second and third floors. Cause, incendiary.

Wednesday, Aug. 9, 5.59 a. m. Box 71.

Newbury street. Owned by D. S. McCabe. Loss, $1,100. Insurance, $2,000. Originated in a building being constructed. Cause, unknown.

Monday, Aug. 14, 11.21 p. m. Box 72.

No. 15 Cedar street. Owned by William O'Brien. Loss, $34. Insurance, $1,600. Occupied by William O'Brien as dwelling. Loss, $75. Insurance, $600. Cause, explosion of kerosene lamp.

Wednesday, Aug. 16, 2.11 a. m. Box 27.

No. 91 Clark street. Owned by E. B. Phillips. Loss, $115. Insurance, $1,500. Occupied by William Lindue as dwelling. Originated in basement in a bundle of woolen rags. Cause, spontaneous combustion.

Wednesday, Aug. 16, 10.29 a. m. Box 74.

No. 41 Bolton street. Owned and occupied by Ann Hayes as dwelling. Loss trifling. Originated on the roof. Cause, sparks.

Thursday, Aug. 17, 8.11 a. m. Box 25.

No. 1 Coolidge place. Owned by G. M. Rogers estate. Loss trifling. Occupied by several families as dwellings. Originated in an ashes chute. Cause, hot ashes.

Thursday, Aug. 17, 3.05 p. m. Still.

No. 13 Rockingham street. Owned by Charles Cook. Occupied by H. H. Brodwick as dwelling. Loss, trifling. Cause, oil stove taking fire.

Saturday, Aug. 19, 1.30 p. m. Still.

No. 64 First street. Owned by W. B. Rice. Occupied by Connecticut Steam Stone Co. as boiler-room. Loss, trifling. Originated in timbers under brick work. Cause, hot ashes.

Sunday, Aug. 20, 7.47 a. m. Box 41.

No. 99 Magazine street. Owned by David Atwood. Loss, $256. Insurance, $5000. Occupied by David Atwood as dwelling. Loss, $83. Insurance, $1000. Originated in the kitchen. Cause, gasoline stove taking fire.

Sunday, Aug. 20, 8.08 p. m. Box 74.

No. 132 Dublin street. Owned and occupied by John Tracy as dwelling. Loss, trifling. Originated in a bedroom. Cause, unknown.

Monday, Aug. 21, 12.35 p. m. Box 62.

No. 5 Brewer street. Owned by T. H. Brewer. Occupied as dwelling. No loss. Cause, soot in chimney taking fire.

Tuesday, Aug. 22, 4.30 a. m. Still.

Harvard bridge. Loss, slight. Cause, electric wires igniting planking.

Saturday, Aug. 26, 7.26 a. m. Box 29.

No. 18 Portsmouth street. Owned by Hannah Griffiths. Loss, $180. Insurance, $4000. Occupied by J. L. Bacon as dwelling. Loss, $75. No insurance. Cause, child and matches.

Tuesday, Aug. 29, 7.34 a. m, Box 31.

No. 41 Porter street. Owned and occupied by J. E. Purcell as dwelling. No loss. Cause, soot in chimney taking fire.

Thursday, Aug. 31, 10.03 p. m. Box 153.

Dyke street. Owned and occupied by Zebah Hayden as carpenter shop. Loss, $90. Insurance, $400. Originated on the outside of building. Cause, incendiary.

SEPTEMBER.

Friday, Sept. 1, 1.58 a. m. Box 56.

Irving street. Burning of a pile of rubbish. Cause, incendiary.

Monday, Sept. 4, 10.30 a. m. Still.

No. 64 First street. Owned by W. B. Rice. Occupied by Connecticut Steam Stone Co. as boiler-room. Loss, trifling. Originated in timbers under brick work. Cause, hot ashes.

Tuesday, Sept. 5, 8.30 a. m. Box 24.

No. 21 Decatur street. Owned by Bridget Dalton. Occupied by Edward Skivington as dwelling. Loss, $25. No insurance. Originated in a closet. Cause, child and matches.

Tuesday, Sept. 5, 9.38 p. m. Box 59.

No. 9 Palmer street. Owned by A. D. Hurd heirs. Loss, $252. Insurance, $5,500. Occupied by Graves & Henry as printers. Loss, $250. Insurance, $8,000. Originated in the cellar. Cause, unknown.

Wednesday, Sept. 6, 11.29 a. m. Box 12.

No. 59 North street. Owned by J. H. Jordan. No loss. Occupied by several families as dwellings. Originated on the roof. Cause, sparks.

Wednesday, Sept. 6, 5.24 p. m. Box 79.

No. 7 Dinsmore Court. Cause, smoke mistaken for fire.

Saturday, Sept. 9, 2.45 a. m. Still.

No. 95 Mt. Auburn street. Owned by Read heirs. Occupied by John McLean as dwelling. No loss. Originated in a rag. Cause, unknown.

Sunday, Sept. 10, 1.51 p. m. Box 36.

No. 563 Main street. Cause, smoke mistaken for fire.

Sunday, Sept. 10, 5.03 p. m. Box 31.

No. 24 Jefferson street. Owned by William Hanlon. Loss, $210. Insurance, $4,000. Occupied by Richard Scannell as dwelling. Originated in a closet. Cause supposed, matches in pocket of clothes.

Monday, Sept. 11, 11.59 p. m. Box 65.

North avenue. False alarm. Given by some malicious person.

Thursday, Sept. 14, 6.57 p. m. Box 75.

Raymond street. Cause, burning rubbish.

Friday, Sept. 15, 7.45 p. m. Box 42.

No. 181 Putnam avenue. Owned by John McDonald. No loss. Occupied by James McDonald as dwelling. Originated in the cellar. Cause, lighted lamp setting fire to hanging clothes.

Tuesday, Sept. 26, 4.01 p. m. Box 14.

No. 171 Thorndike street. Owned by J. E. Dennison. Loss, $6. Insurance, $1,500. Occupied by W. F. Emery as dwelling. Loss, $50. No Insurance. Originated in a bedroom. Cause, child and matches.

Saturday, Sept. 30, 1.53 p.m. Box 15.

No. 152 Charles street. Owned by Patrick McDonald. Occupied by Daniel Kelly as dwelling. Loss, trifling. Originated in a bedroom. Cause, child and matches.

OCTOBER.

Friday, Oct. 6, 3.45 p. m. Still.

No. 139 Gore street. Owned and occupied by C. W. H. Moulton & Co. as ladder manufactory. No loss. Originated on the roof. Cause, sparks.

Friday, Oct. 6, 9.30 p. m. Still.

No. 532 Main street. Owned and occupied by J. D. Hovey as grocery. No loss. Originated in the cellar. Cause, ignition of leaking gas.

Monday, Oct. 9, 2.40 p. m. Box 53.

No. 14 South street. Owned by David Campbell. Occupied by several parties as dwellings. No loss. Cause, soot in chimney taking fire.

Monday, Oct. 9, 5.55 p. m. Still.

Brookline street. Rubbish on dump afire. Cause, unknown.

Tuesday, Oct. 10, 2.32 p. m. Box 71.

Newbury street. Rubbish and culvert afire. Cause, unknown.

Wednesday, Oct. 18, 6.49 p. m. Box 2.

Boston & Maine R. R. Yard. Owned by Pullman Car Co. Occupied as passenger car. Loss, $1,000. Insurance, $1,000. Cause, unknown.

Wednesday, Oct. 18, 7.11 p. m. Box 26.

No. 22 School street. Owned by C. M. Reed. Loss, $400. Insurance, $1,500. Occupied by William Banks as dwelling. Loss, $75. No insurance. Cause, breaking of a kerosene lamp.

Friday, Oct. 20, 4.24–4.38 a. m. Box 72.

Dudley street. Owned by E. B. Badger. Loss, $5,823. Insurance $6,500. Occupied by Consolidated Manufacturing Co. as coffee roasters. Loss, $9,797. Insurance, $10,750. Originated on the first floor. Cause, unknown.

Friday, Oct. 20, 11.22 p. m. Box 72.

Dudley street. Cause, re-kindling of fire.

Monday, Oct. 23, 6.29–6.33 p. m. Box 2.

Boston & Maine Freight Yard. Owned by Boston & Maine Railroad Co. Loss $4000. Insurance, $3,000. Occupied by Boston & Maine Railroad Co. as repair shop. Loss, $11,575. Insurance, $7,500. Loss, on freight cars $15,-00. Insurance, $1,500. Loss on contents $731. Originated in passenger car being repaired. Cause supposed, a painter's lamp.

Thursday, Oct. 26, 3.26 a. m. Box 61.

No. 126 Mt. Auburn street. Owned by E. M. Barbour. Loss, $310. Insurance, $10,000. Occupied by Peabody Club. Loss, $68. Insurance, $4,000. Originated in floor under a gas stove. Cause, unknown.

Thursday, Oct. 26, 4.21 p. m. Box 28.

Broadway. Cause, false alarm.

Sunday, Oct. 29, 8.53–8.56 p. m. Box 25.

Nos. 446–448 Main street. Owned by Chas. Waugh. Loss, $2,750. Insurance, $6,000. Occupied by Chas. Waugh & Co. as carriage manufactory. Loss, $6,179. Insurance, $5,200. Occupied by C. E. Pierce & Co. as a tin ware manufactory. Loss, $1050. Insurance, $2,000. No. 9 State street. Owned by Charles Waugh. Loss, $30. Insurance, $1,500. Occupied by G. R. Jacobs as dwelling. No. 11 State street. Owned by H. F. Russ. Loss, $206. Insurance, $3,000. Occupied by several families as dwellings. Originated in the carriage manufactory. Cause, unknown.

Tuesday, Oct. 31, 3.22 p. m. Box 87.

Concord avenue. Cause, grass burning.

Tuesday, Oct. 31, 4.13 p. m. Box 23.

Boston & Albany Railroad. Car of lumber owned by Geo. W. Gale Lumber Co. Loss, $60. No insurance. Cause, incendiary.

NOVEMBER.

Wednesday, Nov. 1, 5.46 p. m. Box 43.

Banks street. Owned by Vincent Salomone. Loss, $50. No insurance. Unoccupied shed. Cause, incendiary.

Wednesday, Nov. 1, 8.42 p. m. Box 12.

Boston & Maine Railroad. Fire in a bridge. Loss trifling. Cause, fire from a locomotive.

Friday, Nov. 3, 11.10 p. m. Box 271.

No. 746 North avenue. Owned by N. J. Penny. Loss, $150. No insurance. Occupied by R. E. Estela as barber shop and pool room. Loss, $425. Insurance, $500. Cause, unknown.

Sunday, Nov. 5, 5.15 p. m. Still.

First street. Shed on the dump. No loss. Cause, set afire by boys.

Wednesday, Nov. 15, 1.12 p. m. Box 14.

No. 24 Lambert street. Owned by John Devine. Loss $14. Insurance, $700. Occupied by Denis Murphy as dwelling. Loss, trifling. Originated in a bed-room. Cause, unknown.

Friday, Nov. 17, 5.24 p. m. Box 31.

No. 11 Marion street. Owned by William Nixon. Occupied by J. W. Nixon as dwelling. No loss. Cause, wood in stove oven taking fire.

Sunday, Nov. 19, 7.05 p. m. Box 14.

No. 544 Cambridge street. Cause, smoke from chimney mistaken for fire.

Wednesday, Nov. 22, 9.52 p. m. Box 2.

Boston & Maine Railroad Yard. Owned by Pullman Car Co. Occupied as passenger car. Loss, $1,800. Insurance, $1,800. Originated in the roof. Cause, overheated stove pipe.

Friday, Nov. 24, 12.21 p. m. Box 28.

Rear 4 Lilac court. Owned by Mary Coughlin. Loss, $30. Insurance, $400. Occupied by Henrietta Laboo as dwelling. Loss trifling. Cause, child and matches.

Sunday, Nov. 26, 12.15 p. m. Still.

No. 176 Thorndike street. Owned by Samuel Rindge. Occupied as dwelling. No loss. Cause, soot in chimney taking fire.

REPORT

OF THE

CHIEF OF POLICE.

To the Honorable the Mayor and the City Council of the City of Cambridge: —

GENTLEMEN: In compliance with the city ordinance, I have the honor to present my annual report of the work of the Police Department for the year ending November 30, 1893.

The whole number of arrests for the year has been three thousand four hundred and nine (3,409) against 3,047 last year.

Males	3,172
Females	237
Adults	2,974
Minors	435

The offences for which arrests have been made are as follows:

Adultery	9
Assault and battery	218
Assault, felonious	7
Assault on officer	18
Arson	4
Attempt to break and enter	2
Bastardy	13
Breaking and entering	51
Capias	5
Common drunkards	38
Concealing mortgaged property	2
Contempt of Court	2
Cruelty to animals	8
Delirium Tremens	1
Defrauding boarding house keeper	1
Default	1
Disturbing public peace	157
Disturbing public meeting	1
Disturbance on street car	30
Disorderly conduct	88
Drunkenness	2,023
Carried forward	2,679

Brought forward	2,679
Distributing circulars to injure	2
Embezzlement	11
Escaped prisoners	1
Evading car fare	13
Fast driving	2
False pretence	1
Forgery	1
Fornication	1
Gaming, or present at	2
Idle and disorderly	2
Insane	28
Illegal transportation	34
Keeping liquor with intent to sell	2
Keeping unlicensed dog	2
Larceny	143
Larceny from building	1
Lewd and lascivious	2
Libel	1
Liquor nuisances	61
Malicious mischief	38
Manslaughter	3
Malicious injury to real estate	8
Neglected children	20
Non-support	35
Obtaining money by false pretence	1
Obstructing street car	3
Obstructing an officer	1
Passing counterfeit money	5
Peddling without a license	15
Perjury	1
Playing cards on the Lord's day	8
Promoting a lottery	15
Profanity	4
Robbery	1
Selling milk below standard	9
Selling vinegar below standard	1
Selling oleomargarine	1
Stubborn children	18
Suspicious persons	22
Surety of the peace	3
Threatening	10
Truants	8
Trespass	40
Vagrants	14
Violating city ordinances	93
Violating liquor law	9
Violation of the Lord's day	3
Violation of health ordinance	10
Walking on railroad track	21
Total	3,409

Whole number of lodgers		135
Male	129	
Females	6	
Adults	128	
Minors	7	
Amount of property reported stolen		$8,360 00
Amount of property reported recovered		6,084 75

Miscellaneous Business.

Accidents reported	125
Buildings found open and secured	302
Cases investigated	882
Dangerous buildings	4
Dangerous chimneys	1
Dead bodies found	10
Defective cesspools	47
Defective drains	4
Defective fire alarms	2
Defective gas pipes	11
Defective water pipes	42
Defective hydrants	2
Defective lamps	1,525
Defective streets and sidewalks	975
Disturbances suppressed	366
Dogs killed	64
Extra duty done by officers (days)	548
Fire alarms given by officers	10
Fires extinguished without alarms	15
Intoxicated persons helped home	4
Lost children restored	216
Sick and injured persons assisted	80
Stray teams put up	118
Street obstructions removed	79
Water running to waste	40

City Property in Use by Police Department.

104 badges	$130 00
87 belts and billies	108 00
8 books	26 00
3 book cases	20 00
6 bedsteads	30 00
Bedding and blankets	28 00
1 buggy	100 00
2 bureaus	3 00
8 clocks	25 00
89 chairs	100 00
Amount carried forward	$570 00

Amount brought forward	$570 00
4 carpets	50 00
2 copying machines	20 00
250 copies of police rules	40 00
11 desks	100 00
1 easy-chair (matron's)	10 00
4 flags	60 00
4 horses	600 00
5 harnesses	100 00
4 horse blankets	12 00
4 halters	1 00
1 hat rack	50
6 ink stands	3 00
18 lanterns	18 00
1 letter scale	75
3 lounges	10 00
8 mirrors	14 00
3 maps	15 00
10 mats	10 00
9 pair of handcuffs	27 00
1 police van	300 00
3 patrol wagons	1,000 00
3 police signal system	12,000 00
1 pair runners	5 00
93 revolvers	450 00
Ropes and stakes	10 00
3 robes (carriage)	10 00
1 rogues' gallery	150 00
3 saddles and bridles	12 00
1 safe	200 00
95 short billies	42 50
8 spittoons	2 00
1 sleigh	25 00
2 straps and weights	1 00
4 stretchers	6 00
2 stoves	15 00
1 telephone line	300 00
3 thermometers	75
6 tables	24 00
40 tin dippers	9 00
25 towels	4 00
1 typewriter	140 00
2 umbrella stands	2 00
1 wagon van (old)	25 00
5 waste baskets	1 00
4 water coolers	5 00
1 wardrobe	10 00
6 water pails	1 00
2 wagon jacks	2 00
1 operating table and chair	37 50
Miscellaneous	10 00
Total	$16,461 75

Expenditures.

Books	$189 23
Boarding horses	488 00
Buttons	75 00
Carriage hire	60 00
Cambridge Gas Light Co.	1,119 39
Cambridge Electric Light Co.	95 33
Cleaning stations	243 50
Clipping horses	12 00
Cloth for department	569 19
Directories for department	28 00
Diaries for department	65 74
Expressing	7 20
Fresh Pond Ice Co.	28 29
Fuel	47 55
Hay and grain	301 69
Horse hire	15 00
Medical attendance	6 00
Medicine	6 40
New England Telephone Co.	1,200 42
Patrol wagon (new)	422 00
Photographs for rogues' gallery	6 00
Policemen, services of	94,739 78
Printing	86 00
Repairs on wagons	272 37
Repairs on harnesses	13 75
Repairs on clocks	5 00
Repairs on revolvers	9 70
Rent of stable, Fourth street	266 64
Salary of Chief of Police	1,800 00
Salary of Captains and Chief Inspector	3,975 94
Shoeing horses	98 49
Supplies for stations	615 22
Travelling expenses	85 98
Typewriter and desk	140 00
West End Street R. R. Co. (tickets)	220 00
Wiring District No. 1	422 00
Total	$107,736 80

Appropriation and estimated revenue	$107,890 41
Total cost of the department for the year	107,736 80

Expenditures	$107,736 80
Receipts	5 890 41
Balance showing actual cost	$101,846 39
Balance unexpended	$153 61

The Force.

The organizatfon of the force consists of a chief, three captains, one inspector, eight sergeants, eighty-two patrolmen, four drivers of patrol wagons and two matrons.

Two sergeants and twenty-two patrolmen are on duty in the day-time; one sergeant as court officer and one sergeant at the Public Library, one patrolman is stationed at the City Hall, one detailed as clerk at Police Headquarters and one has charge of Police Station Four. During the night-time there are six sergeants and sixty (60) patrolmen on duty; two sergeants in each police district, one with each relief. The night sergeants come on duty with their respective reliefs, but stop in the station to take charge of the signal system. There are two patrolmen as house officers at stations one and five, two patrolmen in the wagon houses and fifty-six (56) patrolmen divided into two reliefs.

Changes.

During the past year two (2) officers have been discharged from the force, and five (5) appointments were made, all under the civil service rules, thereby increasing the force three (3) men.

Matrons.

There have been two hundred and thirty-seven (237) females arrested during the year and turned over to the matrons at station one, who have sole charge of them after the arrest. Their duty has been done to my entire satisfaction.

No-License Law.

As in former years under the no-license law a determined effort has been made to suppress the illegal sale of liquors. During the past year ninety-six (96) search warrants have been served, and eighty-seven (87) were convicted by the Court and fines amounting to $3,150.00 and sentences amounting to thirty-two (32) months imposed.

Police Cloth.

I have bought police cloth to the amount of $569.19 during the year. The money received from the sale of cloth has been

turned into the city treasury, and I now have cloth on hand to the value of ninety-eight dollars and thirty-four cents ($98.34).

Police Signal System.

The system having been introduced into police district one the past year, we now have the entire city covered, and it is giving perfect satisfaction.

Conclusion.

In concluding this report, I desire to extend to his honor the mayor, the committee on police, and other gentlemen of the city council, my sincere thanks for their uniform courtesy.

I desire to commend to your attention and approval the unfaltering and judicious performance of duty by officers and members of our force, and to extend to them my personal appreciation, believing the public do not sufficiently realize how well they have acquitted themselves amid the trying circumstances in which their duty places them.

I am respectfully,

LOTHROP J. CLOYES,
Chief of Police.

REPORT

OF THE

BOARD OF HEALTH.

In compliance with the public statutes creating Boards of Health and defining their duties, we have the honor to make our annual report for the year ending Dec. 31, 1893.

We respectfully call the attention of your honorable body to the following list of complaints and nuisances investigated during the year :—

Full, overflowing and offensive privy-vaults	733
Open, defective and leaky privy-vaults	20
Filthy and defective privy-houses	7
Offensive and defective water-closets	28
Swill and garbage thrown into privy-vaults	5
No proper privy-vaults	2
Full and defective cesspools and catch-basins	6
Defective drainage, open and broken drains, etc.	61
No traps under sinks	33
Leaky and defective traps	4
Filthy yards	118
Swill, garbage, ashes, etc., in cellars and sheds	14
Filthy stables and cow-sheds	13
Manure in yards and on lots	84
Wet and damp cellars	53
Stagnant water on premises	17
Swine kept on premises	6
Miscellaneous	35
Total	1,239
Number of inspections made	6,368
Number of subsequent inspections	4,020
Total	10,388
Number of notices issued and recorded	1,070
Number of special notices issued	104
Orders of the Board served by constable	656
Rooms fumigated	65
Number of notices for treatment of contagious diseases sent out	876
Number of visits to premises where contagious diseases occurred during the year	1,644
Privy vaults abolished	591

The following is a synopsis of the report made to the City Council, September 21, 1893:—

An examination of Broad Canal undertaken during the past year revealed the fact that there were eighteen sources of pollution to its waters entering it from the southerly side, and eleven from the northerly side. These sources of pollution are mainly drains, though there are also a few privies. We look for an improvement in Broad Canal, when the river is freed from the fresh sewage discharged through the Bridge street and the Binney street sewers, but we do not expect relief from the smells of this locality till the new intercepting sewer is in operation. The new intercepting sewer will not however reduce the sources of pollution now existing along the Canal.

Two new sewers should be built to carry off the sewage now poured into the canal; one sewer in Main street from First street westerly to near Pioneer street and intercepting the Third street sewer, should be laid at once, and the old sewer in Main street westerly from Sixth street should be rebuilt. The Third street sewer entering Broad Canal should be discontinued.

Another sewer along Potter street from a point west of Sixth street to Binney street should be built within a year. Dredging the bottom of the canal and washing its walls and shores with a force pump might with advantage follow the measures recommended above.

The new Commission on the improvement of Charles River appointed under Chapter 475 of the Acts of 1893 has jurisdiction over the waters of Broad Canal also, and is charged with the adoption of plans for the removal of nuisances therein.

The Dumps.

The various dumps throughout the city have caused considerable annoyance and given rise to many complaints during the year.

With a view to a more thorough control of the persons using these dumps and for the prevention of the deposit of improper material on them, the Board decided to employ a mounted police officer, for as long a time as the appropriation at their disposal would permit. This officer was on duty from the middle of October to the last of November. A number of

persons were prevented from dumping objectionable material at various points and warned that any attempt to repeat the offense would be followed by prosecution.

In one case, the driver of a team was prosecuted and fined. The short experience the Board has had with this means of prevention, has convinced it of its value, and they think it should be continued next year, and for a longer time.

Cholera.

We have fortunately been spared a visitation of Cholera thus far, the only place in this country where it made its appearance during the year being at Jersey City. In other parts of the world it has however been more or less prevalent at numerous places in the following countries, as appears from the official record—Africa, Arabia, Austria, Austria-Hungary, Belgium, Brazil, Canary Islands, France, Germany, Great Britain, India, Italy, Japan, Netherlands, Russia, Servia, Spain, Sweden, Turkey.

The most recent news from Europe would seem to indicate that with the advent of warm weather next year, the disease is likely to take on renewed activity. We have had our warning, and if we are unprepared to meet the disease it will not be from lack of information as to what may occur.

We refer to our report of last year for the action we consider necessary, and the occurrence of the cases in Jersey City confirms us in our belief that it is folly to rely implicitly on quarantine at ports of entry for our protection, no matter how well it may be carried out.

Free Vaccination.

Owing to the occurrence of some cases of small-pox in neighboring places, the Board decided to open three stations for free vaccination. Station 1, Brattle square was placed in charge of Dr. F. W. Taylor; Station 2, Central square, in charge of Dr. L. L. Bryant; and Station 3, Fourth Street in charge of Dr. Geo. A. Coburn. Following is a list of vaccinations done up to the close of the year:—

Station One.		Station Two.		Station Three.	
Date.	No.	Date.	No.	Date.	No.
December 23.....	2	December 23.....	2	December 23.....	1
" 27.....	24	" 27.....	96	" 27.....	44
" 30.....	45	" 30.....	106	" 30.....	69
Total.....	71		204		114

Mr. Daniel H. Thurston resigned his position on the Board of Health in the early part of the year. Mr. Thurston had been a member of the Board continuously from its institution in 1878 up to the time of his resignation, and during this entire period served as its chairman.

In appreciation of his long and faithful service to the city the Board has caused the following to be inserted in its records :—

"*Resolved*, That the Board of Health of the City of Cambridge hereby records its recognition of the valuable services of Daniel H. Thurston, Esq., as a member of this Board.

"We regret that he has found the infirmities of age, and impaired health have required that he should resign this office.

"We gratefully call to mind that he was chosen chairman of the Board when it was first established February 5, 1878, and that he has on each succeeding year been chosen to preside at our meetings. His time and thought in attendance upon the matters before us for decision and action have placed our citizens under deep obligations to him.

"We are confident that we express the universal feeling, when we wish him in his retirement full satisfaction in contemplating public duty well and faithfully done."

Some Vital Statistics.

In the following remarks the words "Mortality," "Morbidity," "Fatality," are used in the senses here assigned to them:— Mortality — the number of deaths in proportion to population; stated here as the number of deaths per thousand of population. Morbidity — the number of cases of a disease in proportion to

population; stated here as the number of cases per thousand of population. Fatality — the number of deaths in proportion to number of cases; stated here as the number of deaths per hundred of cases.

An accurate knowledge of the population is of prime importance for obtaining correct vital statistics. In intercensal years it is necessary to estimate the population. There are several methods in use for this purpose, and upon the accuracy of the method employed will depend, inter alia, the value of the figures expressing the mortality.

It need hardly be said that the populations of all places should be estimated by the same method if their vital statistics are to be at all comparable. The method used by the State Board of Health is that by the geometric rate of increase. This method was proposed by Dr. Farr, and has been employed for half a century by the Registrar General of England. Dr. John S. Billings, the foremost authority on the subject in this country, writes: "I think the geometric rate of increase is the best general rule to follow for all cities. Where there is reason to suppose an exceptionally rapid growth the estimates made in this manner may be corrected by the number of inhabited houses, taking the ratio of persons per house as shown by last census. I look upon the method of assessed polls, of school children, or city directory, as being very faulty and unreliable.

"With censuses every five years, the geometric formula cannot be very much out of the way." Calculated by this method, the population of Cambridge for 1893 is 77,100. All the calculations based on the estimates of population in intercensal years are provisional, and should be revised after the receipt of the returns of the next census. A source of error in vital statistics is the drawing of conclusions from data derived from facts occurring in too brief a period of time, and this is emphatically so in regard to many conclusions concerning diseases.

The mortality per 1000 living at all ages was 19.72.

Morbidity per 1000 Living.

	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
Diphtheria.....	3.86	3.53	3.80	3.16	3.36	5.16	2.24	1.59	1.74	1.33
Scarlet Fever.....	8.51	6.65	3 70	3.27	2.26	1.70	2.69	4.90	5.01	8.81
Typhoid Fever.....	1.52	1.07	2.18	1.91	2.50	2.94	1.08	0.97	1.07	1.20

Fatality Percentage.

	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
Diphtheria	18.2	29.8	31.9	19.3	26.5	29.3	20.3	13.	37.8	36.8
Scarlet Fever.....	5.84	6.04	3.93	9.56	15.4	6.03	5.29	2.82	4.54	9.85
Typhoid Fever.....	25.8	20.3	14.8	16.3	15.7	13.5	25.	22.8	18.7	17.3

Diphtheria.

There were reported during the year 103 cases, a decrease of 27 from the previous year. Their distribution was as follows: Ward 1, cases 19, a decrease of 3; Ward 2, cases 28, an increase of 2; Ward 3, cases 16, a decrease of 15; Ward 4, cases 18, a decrease of 26; Ward 5, cases 22, an increase of 15. There were during the year 7 deaths certified as from membranous croup, and 3 deaths certified as from croup. January, February, September and October furnished 60 per cent. of all the cases reported. The sex distribution was remarkably even, as appears in the following table. Of the 102 cases in which the age was given, nearly 75 per cent. were under ten years of age.

Age and Sex Distribution.

Age.	Male.	Female.	Sex not given.	Total.
0–1.....	1	1	.....	2
1–2.....	5	5	.....	10
2–3.....	3	6	1	10
3–4.....	6	7	1	14
4–5.....	7	3	.....	10
5–10.....	16	14	.....	30
10–15.....	4	3	.....	7
15–20.....	3	1	.....	4
20–25.....	2	6	.....	8
25–35.....	2	2	.....	4
35–45.....	1	0	.....	1
45–55.....	0	2	.....	2
Age not given.	....	1	.....	1
Total.....	50	51	2	103

The morbidity was the lowest for the ten years comprised in the table given above. The fatality on the other hand was, with one exception, the highest in the same period.

Scarlet Fever.

There were reported during the year 680 cases, an increase of 306 from the previous year. Their distribution was as follows: Ward 1, cases 83, an increase of 28; Ward 2, cases 250, an increase of 142; Ward 3, cases 195, and increase of 114; Ward 4, cases 111, an increase of 16; Ward 5, cases 41, an increase of 6.

Age and Sex Distribution.

Age.	Male.	Female.	Sex not given.	Total.
0–1.....	4	9	1	14
1–2.....	17	22	5	44
2–3.....	35	46	1	82
3–4.....	36	46	1	83
4–5.....	49	39	2	90
5–10.....	124	137	4	265
10–15.....	40	19	1	60
15–20.....	6	6	.....	12
20–25.....	2	6	.....	8
25–35.....	2	2	.....	4
35–45.....	0	2	.....	2
Age not given...	5	11	.....	16
Total.....	320	345	15	680

Of these 680 cases 93 per cent. were under fifteen years of age. The excess of females over males probably does not exceed the proportion of females to males in the population, which was at the last census 51.16 to 48.84.

The morbidity was the highest during the past ten years, slightly exceeding that of the year 1884. The fatality was slightly above that of the year 1887, and considerably less than that of the year 1888, which was an exceptional one in scarlet fever fatality.

An unusual prevalence of scarlet fever, or of diphtheria, always raises a question of the expediency of closing the public schools.

Setting aside the fact that boards of health have not this power, it does not appear as if such a proceeding would answer any useful purpose in the majority of cases in such a city as Cambridge.

"The material consideration, in deciding as to the desirabilty of closing schools during the prevalence of infectious disease, is the amount of opportunity for intercommunication between the members of different households elsewhere than at school.

"In sparsely populated rural districts, where the children of different households rarely meet except at, or on their way to the village school, the closing of the school is likely to be effectual in checking the spread of disease. It is less likely to be useful in a town or compact village, where the children of different households, when not at school, spend their time in playing together, and often run in and out of each others' houses. In some such places the closing of schools has even appeared to do harm rather than good.

"In rural districts where epidemic diseases are less frequently prevalent, school closing may be required as an exceptional measure to meet an exceptional state of things. As regards more populous places, it must not be forgotten that if schools were to be closed whenever an infectious disease was prevalent, there are many places where schools would hardly ever be opened. It will sometimes be necessary to close a school for a day or two to allow of the rectification of sanitary defects of a nature to extend disease." (Twentieth annual report of the Local Government Board, 1890–91.)

Any plan calculated to control effectively the spread of such diseases as scarlet fever and diphtheria must include the following measures :—

1. *Isolation.*—Hospital accommodation will be required for those cases which cannot be properly isolated at home.

2. *Disinfection.*—Carpets, bedding, clothing and such like articles can be disinfected by steam. This requires a proper plant.

3. Articles of little value that have been exposed to contamination should be burned.

4. The floor and woodwork of rooms should be well scrubbed with soap and hot water. Walls, ceilings, chairs, bedsteads and such other pieces of furniture should be thoroughly wiped with damp cloths, and the cloths burned.

5. Windows should be left open for several days. Fresh air and sunlight are among the most effective of purifiers.

Burning sulphur, or the evolution of chlorine fumes, are useful adjuncts, but they cannot take the place of the measures mentioned above, and to rely on them is, in our opinion, a grave mistake. Disinfection means a process by which disease-producing micro-organisms are killed. It does not mean deodorization, nor does it mean the substitution of one smell for another smell. It is one thing to kill germs in a test tube; to do this in a room with all its cracks and corners, and its unavoidable leakage is a very different business.

Typhoid Fever.

There were reported during the year 92 cases, an increase of 12 from the previous year. Their distribution was as follows: Ward 1, cases 18, an increase of 6; ward 2, cases 41, an increase of 13; ward 3, cases 12, a decrease of 1, ward 4, cases 17, a decrease of 3; ward 5, cases 4, a decrease of 3.

Males seem to have furnished a larger proportion of the cases, 57.6 per cent., than their proportion of the population, 48.84 per cent. at the last census, would warrant. It may be that taking meals away from home more frequently than females they have more opportunities for introducing the morbific germ into their systems.

Age and Sex Distribution.

Age.	Male.	Female.	Sex not given.	Total.
5–10.....	1	0	.....	1
10–15.....	6	3	.....	9
15–20.....	7	5	.....	12
20–25.....	15	3	.....	18
25–35.....	15	14	2	31
35–45.....	5	5	1	11
45–55.....	1	1	.....	2
55–65.....	0	1	.....	1
Age not given.	3	4	.....	7
Total.	53	36	3	92

The morbidity and the fatality were both low, judging by the record of the past ten years. An investigation of the cases showed that nine of them were almost certainly contracted elsewhere than in Cambridge. This may be true of others, but the evidence was not convincing. In 52 cases no defect was found in the sanitary condition of the premises. The defects in the rest were mainly untrapped sinks. The milk was obtained from so many different sources that nothing of any value in a positive way was elicited by the investigation.

Mortality per 1000 Living at all Ages.

	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.
Cancer.....	0.44	0.58	0.64	0.56	0.53	0.64	0.67	0.72	0.56	0.60
Diarrhœal Diseases.	1.30	1.70	1.53	2.16	2.26	1.79	1.82	1.92	2.04	1.64
Measles.....	0.01	0.16	0.06	0.68	0.03	0.17	0.01	0.11	0.02	0.14
Phthisis.....	3.12	3.03	2.88	2.64	2.50	2.63	2.49	2.73	2.69	2.76
Whooping Cough...	0.24	0.11	0.16	0.06	0.36	0.19	0.18	0.16	0.14	0.20

The cancer mortality has remained fairly constant, varying within narrow limits during the past ten years.

The mortality from diarrhœal diseases was low, those of 1884 and 1886 being the only ones in the decade falling lower.

The mortality from measles was in a mean degree. The high water mark was reached in 1887, while the years of low mortalities were 1884, 1886, 1888, 1890, 1892.

The whooping cough mortality was rather high, having been exceeded but twice, namely in 1884 and 1888.

Phthisis, a disease in many instances of long duration, can not be judged from the record of a single year, but its mortality curve since 1851 shows a fairly constant downward course from a fraction over 4 in the late fifties to less than 3 during the past eight years.

Influenza.

The following table gives the total deaths in the causation of which this affection was certified to have been a factor. No compilation can, of course, possess greater accuracy than that of the data from which it is constructed. If the returns are of little value so is the table.

Sex.	Age.	Died.	Cause of Death.
Female.....	2½ years	February 28.	Pneumonia, following influenza.
Male.....	6½ "	March 16....	Influenza, followed by convulsions and pneumonia.
Male.....	63 "	" 17.....	Influenza, followed by pulmonary congestion.
Male.....	63 "	April 12.....	Influenza and chronic bronchitis.
Female.....	84½ "	" 16.....	Epidemic influenza and exhaustion.
Male.....	9 mos.	May 6.....	Influenza, followed by cerebral congestion and convulsions.
Male.....	67½ years	June 14.....	La grippe, enlarged and inflamed prostate gland, acute cystitis, retention of urine.
Male.....	43 "	" 30.....	La grippe followed by marasmus.
Female.....	61 "	November 26	Influenza.
Male.....	9 "	December 4.	Influenza and tonsillitis, followed by epileptiform convulsions.
Female.....	79 "	" 19.	Exhaustion, following influenza.
Female.....	2½ "	" 22.	Influenza, followed by pneumonia.
Male.....	83 "	" 26.	Influenza.
Female.....	65 "	" 26.	Influenza and organic heart trouble.
Male.....	79 "	" 26.	Influenza, followed by coma and hypostatic congestion of lungs.

A Table of Deaths in 15 Age-Groups.

Diseases.	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	Totals Under 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	Over 75.	Totals.
Accident	1	....	1	1	....	3	2	1	....	2	3	4	2	1	2	4	24
Anæmia pernicious	....	....	....	....	....	....	....	....	....	1	....	1	....	1	....	2	5
Cancer	....	....	....	....	....	....	....	2	1	....	1	5	13	10	10	5	47
Diabetes	....	....	....	....	....	....	....	....	1	....	....	1	3	1	....	....	6
Diarrhœal diseases	90	18	2	1	....	111	2	1	....	....	....	1	2	4	2	4	127
Diphtheria and croup	3	9	10	4	8	34	11	2	....	....	....	....	....	1	....	....	48
Erysipelas	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	2
Fever, cerebro-spinal	1	....	....	2	....	3	2	2	....	....	....	....	....	....	....	....	7
" Malarial	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	1
" Scarlet	4	8	13	12	8	45	21	....	....	....	....	1	....	....	....	..	67
" Typhoid	....	....	....	....	....	....	....	1	....	2	6	6	....	....	1	....	16
Influenza	1	....	2	....	....	3	2	....	....	....	....	1	....	2	2	4	14
Measles	3	4	1	....	....	8	2	....	....	....	1	....	....	....	....	....	11
Phthisis	5	1	....	1	1	8	2	9	27	42	47	37	19	12	7	3	213
Puerperal diseases	....	....	....	....	....	....	....	...	1	2	3	2	...	....	....	....	8
Purpura	....	1	....	....	....	1	....	....	....	1	....	....	....	....	...	....	2
Pyæmia	1	....	....	....	....	1	....	1	....	....	....	....	....	....	....	....	2
Rheumatism	....	....	....	....	....	....	1	....	....	....	....	....	1	....	....	....	2
Scrofula	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1
Suicide	....	....	....	....	....	....	....	....	....	....	1	....	1	....	...	....	2
Syphilis	1	....	....	....	....	1	....	....	....	1	....	....	...	....	....	....	2
Whooping cough	8	6	1	1	....	16	....	....	....	....	....	....	....	....	....	....	16
Dis. circulatory system	9	....	....	....	....	9	3	4	1	3	4	10	17	16	23	23	113
Dis. digestive "	13	3	....	....	....	16	2	1	1	3	10	4	2	8	6	6	59
Dis. nervous "	55	27	9	10	5	106	8	2	4	2	7	5	15	23	21	20	213
Dis respiratory "	53	29	6	3	2	93	7	1	5	10	18	11	23	27	28	23	246
Dis. urinary "	....	....	1	....	1	2	....	3	1	3	6	7	12	12	9	9	64
All other causes	102	6	2	....	1	111	5	2	1	5	7	3	14	9	14	30	201
Age not given	...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
	350	113	48	35	26	572	70	32	43	77	115	101	124	127	125	133	1521

Dividing the population into three groups, and assuming for the sake of a rough comparison that the proportions remained the same as at the last census, the following conclusions are reached:—

First group.	Proportion under 5 years of age.....	9.77 per cent.
Second group.	Proportion between 5 and 45 years of age.....	71.22 "
Third group.	Proportion over 45 years of age.....	19.01 "

Of all the deaths reported to the Board during the year the first group furnished 37.6 per cent.; the second group, 28.7 per cent.; the third group, 33.5 per cent. In round numbers twenty-nine per cent. of the population furnished seventy-one per cent. of the deaths. Certain diseases have their periods of harvest time. All but four of the deaths from cancer were among persons over thirty-five. Diarrhœal diseases, on the contrary, find their victims at the other extreme of life; children under two years of age supplying one hundred and eight deaths out of a total of one hundred and twenty-seven. Phthisis, though destructive at every age, has its predelictions, as the table shows. The heading "All other causes," includes a number of affections which could only be classified in a system too elaborate for the present purpose. It includes such terms as anæmia, atrophy, debility, inanition, marasmus, and other similar ones. At the extremes of life the outlines of diseases are less clearly defined, and the picture becomes blurred. Dr. Farr recognized this long ago, and, in speaking of the affections of advanced age, he says "diseases grow again as obscure as they were in infancy."

WM. H. WHITNEY,
E. E. SPENCER,
H. E. WARNER,
Board of Health.

OFFICE OF BOARD OF HEALTH,
CITY HALL, Dec. 30, 1893.

To the Honorable the City Council:

This Board herewith respectfully submits its annual financial statement, it being for the year ending November 30, 1893:—

Amount appropriated for Health Department		$7,000 00
Less amount transferred to Department of Public Buildings	$550 00	
Less amount transferred to Department of Out-door Poor	1,000 00	
		1,550 00
		$5,450 00

AMOUNT EXPENDED.

Advertising	$33 82
Analysis of well waters	20 00
Burying animals	47 75
Chemicals and disinfectants	26 03
Car tickets	250 00
Carriage hire	10 00
Directories	8 00
Document and index cases, etc	61 92
Expense of delegate to Medical Congress	94 11
Express	15
Horse hire (patrol)	68 00
Map	3 50
Printing	73 15
Quarantine expenses	15 00
Rubber stamp	2 50
Services clerk, sanitary and special Inspectors	2,985 14
Services of Medical Inspector	1,500 00
Serving notices	29 67
Stationery and postage	211 63
Steel punch	75
Typewriter supplies	2 75
Vaccine points	31 50
Total expenditures	$5,475 37

Deficiency, $25.37.

By direction of the Board of Health,

JAMES B. SOPER,
Clerk.

APPENDIX.

Causes of Deaths in 1893.

Still-births and Deaths of Non-residents Omitted.

Diseases.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Abcess	1	1	....	1	2	....	1	1	....	....	....	2	9
Accidents	3	6	....	2	5	3	2	....	....	2	1	....	24
Alcoholism	....	....	....	1	....	2	....	....	....	....	....	1	4
Anæmia	1	....	2	1	....	....	....	....	....	....	2	....	6
Aneurism	....	....	1	....	....	....	....	....	....	....	....	....	1
Angina pectoris	....	1	....	....	1	....	1	....	....	....	....	....	3
Appendicitis	1	....	....	1	1	....	....	....	....	....	....	....	3
Apoplexy	7	5	6	7	4	4	2	6	2	3	5	6	57
Asthma	....	....	1	1	....	....	....	....	1	....	....	....	3
Asphyxia	....	....	....	....	....	....	1	...	1	....	....	....	2
Atrophy	1	1	1	3	1	3	1	7	6	6	3	1	34
Brain disease	2	2	3	....	1	2	1	....	....	....	1	2	14
Bronchitis	10	10	13	13	7	2	....	3	2	2	4	9	75
Cancer	8	1	....	4	6	2	2	5	2	6	8	3	47
Congenital deformity	....	....	....	....	....	....	....	....	....	....	2	....	2
Convulsions	3	2	2	2	4	....	4	....	2	4	....	4	27
Convulsions pueperal	....	....	1	....	....	....	....	....	....	....	....	....	1
Croup	....	....	....	1	....	....	....	...	1	....	....	1	3
Croup, membranous	....	....	1	....	....	....	....	....	...	1	....	5	7
Cystitis	....	....	....	....	1	....	....	....	....	....	1	1	3
Debility	....	3	1	....	3	1	2	1	....	....	1	2	14
Diabetes	1	....	....	1	....	....	1	....	....	1	2	....	6
Diarrhœal diseases	2	....	1	1	2	4	47	33	21	7	6	3	127
Diphtheria	5	2	....	3	4	...	3	2	6	8	2	3	38
Dropsy	....	1	....	....	....	....	....	....	....	....	....	....	1
Dystocia	....	....	....	....	....	....	....	....	....	....	....	1	1
Eczema	....	....	....	1	....	....	....	....	....	....	....	....	1
Embolism, pulmonary	1	....	....	....	....	....	....	...	....	....	....	....	1
Epilepsy	1	....	....	....	....	1	...	....	....	....	....	....	2

Causes of Death in 1893. — *Continued.*

Disease.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total
Epistaxis	....	....	....	....	....	....	....	1	....	....	....	....	1
Erysipelas	....	1	....	....	....	...	....	....	1	....	....	....	2
Fever, cerebro-spinal	....	....	....	2	1	....	....	1	1	1	1	....	7
Fever, Malarial	1	....	....	....	....	....	....	....	....	....	....	....	1
Fever, Scarlet	9	5	4	3	4	2	5	2	3	3	15	12	67
Fever, typhoid	1	1	....	1	2	1	....	....	4	2	4	....	16
Fistula	....	....	....	....	....	....	....	....	....	1	....	....	1
Gangrene	....	....	....	1	....	...	....	....	....	....	....	....	1
Gastritis	3	1	1	1	....	....	2	1	2	....	....	1	12
Heart disease	12	5	11	12	10	4	9	5	5	7	8	14	102
Hematophilia	1	....	....	....	....	....	....	....	....	....	...	....	1
Hernia	1	....	1	....	1	....	....	....	....	....	....	....	3
Hemorrhage, Pulmonary	1	1	....	....	....	....	....	....	....	....	. ..	....	2
Hlp disease	....	....	....	....	....	....	....	....	....	1	....	....	1
Ill-defined disease	1	1	1	....	....	....	1	2	1	3	1	....	11
Indigestion	....	....	....	....	....	....	....	....	....	1	....	...	1
Inanition	1	2	...	1	1	1	....	1	2	1	2	2	14
Influenza	....	1	2	1	1	2	....	....	....	....	1	6	14
Insanity	3	3	....	....	....	....	....	....	....	....	3	....	9
Intestines, disease of	1	2	....	....	1	1	2	1	1	....	....	....	9
Jaundice	1	...	....	....	....	....	....	....	....	....	1	....	2
Kidney disease	1	....	2	1	1	1	....	1	....	....	1	1	9
Laryngitis	....	....	1	....	....	....	....	....	....	....	...	1	2
Liver disease	....	....	2	1	1	2	...	....	....	....	1	....	7
Lung disease	....	1	3	....	1	....	3	2	....	....	....	1	11
Measles	....	1	....	1	4	3	1	....	....	....	....	1	11
Meningitis	7	5	7	6	8	6	7	8	10	5	4	5	78
Myelitis	1	....	....	2	....	....	....	1	1	....	....	1	6
Nephritis	3	4	3	3	2	2	5	4	4	7	8	6	51
Old age	2	5	4	....	2	1	1	1	3	....	1	2	22
Paralysis	....	2	1	3	2	1	3	2	1	2	....	....	17
Pelvic inflammation	....	....	....	....	....	....	....	....	....	....	....	1	1
Peritonitis	1	1	1	....	1	2	2	1	3	....	....	....	12
Pharingitis, membranous	....	....	....	....	....	....	....	1	....	....	....	....	1

Causes of Deaths in 1893. — *Continued.*

Diseases.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Phlebitis	....	....	1	....	....	....	....	....	....	....	....	....	1
Phthisis	14	22	24	24	19	19	17	13	10	10	20	21	213
Placenta, disease of	....	....	....	....	....	1	....	....	....	....	....	...	1
Pleurisy	....	....	1	2	....	1	....	....	...	....	....	....	4
Pneumonia	15	17	13	22	15	10	7	4	9	3	9	24	148
Poison, arsenical	....	....	....	....	....	....	....	....	....	....	....	1	1
Pott's disease	....	....	....	....	....	....	....	....	....	....	1	....	1
Premature birth	6	....	2	4	1	3	4	4	....	3	4	1	32
Puerperal Fever	2	....	....	....	....	....	....	....	....	....	....	....	2
Purpura Hemorrhagica	....	....	....	1	....	....	....	....	....	1	....	....	2
Pyemia	1	....	....	....	....	....	....	....	....	1	....	....	2
Rheumatism	....	....	....	1	....	....	....	....	....	....	....	1	2
Scrofula	....	...	....	1	....	....	....	....	....	....	....	....	1
Septicæmia Puerperal	....	....	1	1	1	....	...	1	....	....	....	1	5
Spina Bifida	....	....	....	....	....	....	....	....	....	....	1	2	3
Spinal disease	....	....	....	....	1	1	....	....	....	....	....	....	2
Stricture of rectum	....	....	....	....	....	....	....	....	....	....	1	....	1
Suicide	2	....	....	....	1	....	....	1	1	1	3	....	9
Surgical operation	....	....	....	....	....	....	...	....	1	....	....	....	1
Syphilis	....	....	....	1	1	....	....	....	....	....	....	....	2
Teething	....	....	....	....	....	....	....	....	2	1	....	....	3
Tetanus	....	....	....	....	....	....	....	....	1	....	....	1	2
Tonsilitis	....	....	1	....	...	....	....	....	1	....	....	....	2
Tuberculosis	....	....	....	...	....	2	2	1	....	1	....	1	7
Tumor	....	....	....	2	....	....	1	....	....	....	....	....	3
Umbilicus ulceration	1	....	....	....	....	....	....	....	....	....	....	....	1
Unknown	1	3	4	4	6	2	4	2	1	....	1	4	32
Uræmia	....	....	1	....	....	....	....	....	....	....	....	....	1
Whooping cough	1	....	....	....	1	....	2	4	1	3	4	....	16
Totals	141	119	125	145	131	92	146	123	113	98	133	155	1521

Cases of Typhoid Fever, Scarlet Fever and Diphtheria Reported to the Board of Health during the Year 1893.

	Ward.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Typhoid Fever.	1	1	3	0	1	4	0	0	1	7	1	0	0	18
	2	0	0	1	0	0	0	3	5	12	8	10	2	41
	3	0	1	0	0	0	0	0	1	4	1	3	2	12
	4	1	0	0	1	1	2	1	0	7	3	1	0	17
	5	1	0	0	0	0	0	0	0	0	1	2	0	4
Total		3	4	1	2	5	2	4	7	30	14	16	4	92
Scarlet Fever.	1	16	11	10	3	5	8	3	0	1	3	6	17	83
	2	20	14	19	15	15	9	16	10	18	31	54	29	250
	3	9	7	2	1	9	4	5	8	15	30	62	43	195
	4	8	14	16	2	10	9	4	2	1	5	17	23	111
	5	7	5	1	8	6	1	1	1	0	1	2	8	41
Total		60	51	48	29	45	31	29	21	35	70	141	120	680
Diphtheria.	1	4	3	0	7	1	1	0	0	1	2	0	0	19
	2	6	1	3	2	2	1	0	4	2	3	2	2	28
	3	3	3	0	0	0	0	1	1	1	5	2	0	16
	4	5	2	1	0	3	1	1	0	3	1	0	1	18
	5	1	4	0	0	0	2	0	0	4	8	3	0	22
Total		19	13	4	9	6	5	2	5	11	19	7	3	103
Grand totals		82	68	53	40	56	38	35	33	76	103	164	127	875

REPORT

OF THE

SUPERINTENDENT OF LAMPS.

CAMBRIDGE, December 1, 1893.

To the Honorable the City Council :—

I HAVE the honor to herewith submit the annual report of the Lamp Department for the year ending Nov. 30, 1893.

	1892.	1893.
The amount appropriated	$65,006 50	$67,000 00
Balance unexpended	1,143 82	384 07

The principal amounts expended are as follows:—

For arc lighting	$47,164 93	$50,517 78
Incandescent	3,170 35	4,012 60
Gas consumed	7,266 69	6,506 34
Care of lamps	4,551 34	3,678 00

Expenses for electric lighting have been as follows:—

Arcs.

	1892.	1893.
Amount of bills rendered	$47,428 83	$50,704 41
Amount of deduction for outages	263 90	186 63
Amount expended for arcs	$47,164 93	$50,517 78

Incandescents.

	1892.	1893.
Amount of bills rendered	$3,205 52	$4,037 60
Amount of deduction for outages	35 17	25 00
Amount expended for incandescents	$3,170 35	$4,012 60

The largest number of arc lamps in use in any one day	447
The largest number of incandescents in use in any one day	168

Whole Number of Lamps in use Nov. 30, 1893.

Arcs	447
Incandescents	168
Gas	300
Oil	32
Total	947

During the year many petitions have been presented for new lamps, and the committee have been about the city investigating the merits of the several requests; they found that most of the petitions represented actual needs and have from time to time recommended the granting of the same; thus many dark spots have been provided for during the year.

Gas Lamps.

There are still remaining upon our streets a large number of gas lamp posts which will probably never be used again; these should be removed during the coming year.

During the coming year the question of gas lamps must be considered, as the present contract for gas at $1.20 per thousand expires in October, 1894.

Our lighting is in as good condition as we can expect until the wires are placed in underground conduits, where storms will not interfere with them and swinging "grounds" will not be known.

To the Lamp Committee, which has so carefully investigated each petition, always with the interests of the whole city at heart, I extend my thanks.

Respectfully submitted,

CHAS. H. MORSE,

Superintendent of Lamps.

REPORT

OF THE

INSPECTOR OF WIRES.

CAMBRIDGE, December 1, 1893.

To the Honorable the City Council:

I HAVE the honor to herewith submit the annual report of the Department for the Inspection of Wires for the year ending November 31, 1893.

This department has been called upon during the past year to perform all of the electrical construction required by the city, it having been found cheaper to do the work in this way rather than by contract. As the men are also obliged to keep it in repair, they spare no pains to do first-class work. During the year the engine house in Lafayette Square has been wired for electric lights, and this, like Steamer Three's house, has been provided with an automatic circuit which lights the lamps when the gong strikes and also extinguishes them when the engine leaves the house thus saving a large amount of current.

The houses have also been wired for the fire alarm telegraph and telephone circuits by means of tubing in such a manner that the wires, although concealed, may be drawn out in case of trouble, also so that it is adapted for either an overhead or underground system of distribution.

Three fire alarm boxes have been located during the year and one whistle machine put in circuit at the Electric Light station. This has proven a valuable addition to the system, as it gives the alarm to the call men, and the no-school signal to the school children in that section of the city. Our fire alarm telegraph has worked as well as could be expected with overhead wires. It has been called upon to give 167 alarms of fire and has failed in no instance to give the alarm perfectly, when the party pull-

ing the box has followed the instructions given on each door. This excellent record is due to good fortune, partially at least, as we have had at various times a circuit out of order for an hour or more, due in every instance to the risks attending overhead construction.

I would recommend that the whistle, now pulled by hand at the Woven Hose Factory, be made automatic. As the whistle is now installed the expense would be very small.

A police signal system has been installed by this department at Police Station One, consisting of a table and twenty street boxes, with telephones connected by metallic circuits. We now have charge of three systems of four circuits each, and fifty-four boxes each of which contains a telephone. All electric bell work in public buildings has, at the request of the Superintendent of public buildings, been kept in repair by this department to the satisfaction of all concerned.

At the request of the Water Board the Inspector of Wires made a series of tests upon the water pipes of the city, and has had several conferences with the electricians of the West End Railway Company with a view of preventing electrolytic action upon our water pipes. A large amount of work has been done by the company in the right direction, but more remains to be done. The average citizen has no conception of the large amount of damage being done throughout the country in consequence of the neglect of the railway companies.

Electrolytic action is not a new thing. In the year 1300 note was made of this action. Although the Faradic battery was not discovered till 1799 yet electrolytic action has been known for five hundred years at least. Iron tools of miners working in copper mines were covered with a thin coating of copper caused by electrolytic action.

In an electrial plant we really get our highest potential at what we call the positive pole of the dynamo. The current of electricity flows out from the positive pole of the generators. These generators are coupled together in multiple, that is, all the positive poles together. As two or three steam fire engines may all throw their water into one line of hose, so all the generators throw their energy from the positive side of the dynamo on to the feed wires. These feed wires radiate to all

parts of the system. From the East Cambridge power house, for instance, they extend to Arlington, all parts of Cambridge, some parts of Boston, to Everett, Charlestown and Somerville. They should be of sufficient capacity to carry the current without a large fall of pressure, the same as with our water mains, when we draw all that the generators are capable of developing with safety at the end of our lines.

Now, if I may refer to a water works system, every particle of current which leaves these feeders and goes through the cars must return to the negative pole of the dynamo, as in the water works system every particle of water which runs out from the faucets must find it way back to the sea level. In the same way the electric current comes back. We lose in our water works system a large amount of our power in consequence of distributing the water at a higher level than the sea level, in the electric system this should not be necessary. The current goes through the feeders to the trolley wires, through the trolley down the pole to the car, through a concealed wire to the motor under the car. This motor should consume practically all the energy, and when the current leaves and goes into the rail it should have an easy path upon which it can return, so easy that there will be no loss of pressure noticeable on the return. When electric cars were first put in operation in Cambridge they depended upon mother earth, the water pipes, the gas pipes, and anything over which the current could flow, to convey it to the station. Not much was given to the loss which would result to the company from doing this, to say nothing about the effect upon our wires. I can perhaps illustrate this loss by saying that three months ago in parts of Cambridge the loss of pressure due to the power which was required to force this current back over this uncertain path was 20 per cent. When informed that the central stations of the West End Railroad company have a maximum capacity of 12,000 horse power, which would give sufficient current for 24,000 arc lamps the same as are used in our streets, or 120,000 incandescent lamps, one gets an idea of the power which is being sent out.

The effect of this was called to my attention by the superintendent of the Cambridge Water Works, and a series of tests were made to ascertain the quantity, and a little reasoning was

done to determine the consequence. Electric currents have nearly the same laws as hydraulics. You take a 2-inch pipe and a 4-inch pipe, not counting in friction, the 4-inch pipe will carry four times as much water as the 2-inch, the amount varying directly as the square of the diameters. The current of electricity which will flow through two wires side by side is in the same proportion, the larger the wire the larger the current, varying as the squares of the diameters of the wires. Electricians use a little different form from what hydraulic engineers do, and instead of speaking of diameters squared we speak of wires now as of so many circular mills. This gives us immediately the idea of the amount of current which will pass over these wires. It is simply the diameter in thousandths of an inch squared.

The resistance is the same as it is in a water pipe, in one sense ; you get small resistance through a large pipe, the smaller the resistance the larger the quantity of water delivered. And the same rule holds with wire ; the smaller the resistance the larger the quantity of electricity which will flow under a given pressure. If several paths are open we say the current divides inversely as the resistance. If the frictional effect or resistance of a wire is small, large amounts will flow. If we have two water pipes side by side running from the same reservoir, and we are drafting at the same point, if the pipes are of the same frictional effect, we shall have the same current of water flowing through the two pipes. Now, if we have two wires side by side, attached to the same machine, the current will divide and will flow through these wires inversely according to the resistance. The larger the wire, the less the resistance and the more the flowage, provided they are of the same metal.

When the railroad company put in their power plant, they ran large numbers of feeders, as we call them, and one wire between the rails and attached the two rails to this return wire, so that the current, as I said before, will go to the car through the motor to the wheels, to the rails, and get along as best it can back to the station. This became very soon an uncertain path, as it was found that electrolytic action took place upon this wire and it disappeared in places. They thought at first that it was due to something in the soil, but it was very soon traced to the

same enemy which we have to contend with, that is, electrolytic action. When this wire was eaten off and a car came on to that section, if by any chance you placed one foot upon the rail and another upon the ground near it, shocks could be obtained. That happened simply in this way. The current must get back to the station, and it would take to the rail, which was not well grounded, would go up one leg of the man who stood on the rail and down the other to the earth, especially if the earth was a little moist, dividing again inversely according to the resistance.

I know of no way by which we can use the single trolley system and overcome this difficulty without putting up an immense amount of overhead returns, through which the resistance will be reduced to almost nothing. How far the company will be willing to go in this I cannot say. Certainly the city should require it carried to such an extent that the pipes will be in perfect safety.

Last summer the wires of the police signal system on Front street were removed from overhead and placed in the cables of the telephone company, and the signal box on Harvard bridge placed in the sentry box on the easterly side of the bridge. I earnestly recommend that we continue this underground work by placing our fire-alarm and police telegraph wires, and the private fire department and police department telephone wires (11 in all) in the duct reserved for us on Main street from Inman street to West Boston bridge.

Until 1889 all pole locations in Cambridge were granted to telephone companies on conditions that the companies would carry the wires of other people at the order of the Board of Aldermen, and that they would remove the poles at the order of the Board. In this year the telephone company secured a blanket grant of all their existing locations with the restrictions removed. After this all the locations were granted on condition that the company would obey all existing ordinances and all ordinances which might hereafter be made, and filed a bond for $10,000 agreeing to the same.

Last year the committee decided to grant locations only upon the condition that the company would return to the original agreement for all poles in the city, considering it not unreasonable upon the ground that the lines had been erected, with full

knowledge of the conditions, practically the same as those now required.

The locations granted in 1892, under the conditions described above were refused. Again this year locations were applied for and a request made for a hearing upon the form of order. This was granted May 31, and the Committee on Roads and Bridges unanimously voted to adhere to the form of order, and later an ordinance was adopted containing some of the conditions of the order. The above vote was taken in the presence of the Superintendent of the Telephone Company, and in a few weeks this company applied for locations upon Fayerweather street, with the understanding that the Electric Light Company should place its wires upon these poles. The Telephone Company was distinctly informed by the Treasurer of the Electric Light Company, in the presence of the Inspector of Wires, that the Electric Light Company would accept the locations and carry the telephone wires. The Telephone Company, however, applied for the locations and they were granted to them, after which they were refused in a lengthy communication to the Board of Aldermen.

Respectfully submitted,

CHAS. H. MORSE,

Inspector of Wires.

REPORT

OF THE

SEALER OF WEIGHTS AND MEASURES.

OFFICE OF SEALER OF WEIGHTS AND MEASURES,
CAMBRIDGE, Nov. 30, 1893.

To the Honorable the City Council:—

I HAVE the honor of submitting to you the annual report of the department of Weights and Measures.

The net amount of appropriation	$1,150 00
Estimated revenue	600 00
Total appropriation	$1,750 00
Amount expended	1,654 93
Balance unexpended	$95 07

Whole number of scales, weights and measures inspected	35,968
Whole number of scales, weights and measures condemned	1,541
Whole number sealed	34,427

Number of scales found incorrect and adjusted	225
Number of weights found incorrect and adjusted	60
Number of dry measures found incorrect and adjusted	38
Number of wet measures found incorrect and adjusted	3
Total	326

Number of scales condemned	6
Number of weights condemned	1
Number of dry measures condemned	17
Number of wet measures condemned	7
Number of milk cans condemned	1510
Total condemned	1541

Amount of cash received as fees for sealing	$366 99

Expenses of this Department.

Salary of A. F. Roberts, sealer	$800 00
Salary of C. D. Kinnear, assistant	230 00
Horse keeping	300 00
Horseshoeing	9 50
Stationery, envelopes, stamps and sealing books	13 53
Steel dies and brands (C. 93)	9 09
Hardware, tools, etc.	7 72
Repairs on sealing scale	2 50
Repairs on and painting wagon	33 85
West End R. R., tickets	20 00
Thomas Gurnham, one-half fees collected for weighing	8 59
Lumber for frame for public scales at No. Cambridge, and labor on same	65 95
Advertising annual notice	5 78
Posting annual notices	3 00
Scales for the Department	12 00
Cambridge directory	3 00
Mason work on foundation for scales at North Cambridge	77 99
Repairs on and labor resetting scales at North Cambridge	52 43
	$1,654 93

This department has been unusually busy this year as my report will show.

The number of scales, weights and measures inspected exceeds that of last year by several thousand, and the amount of work performed at the office has been very much more than last year, from the fact that many have taken advantage of their privilege, viz.: to bring their scales, weights and measures to the office of the sealer, thereby saving the expense which would otherwise have been incurred had the sealer been obliged to have visited their places of business and did the work there. This, of course, has reduced the revenue of the department.

I am happy to report the occurrence of no accident during the year. I have been obliged to cause the arrest of several persons for the use of illegal measures, for which offence they have been fined. This has had its salutary effect. It is gratifying to report that every case that has been prosecuted, the parties have come from other cities and not from among our own citizens.

Although our city is not entirely rid of these illegal measures, and those who practice the use of them, yet the decrease in the number is very noticeable, and it is the aim of the sealer as far

as is possible to remove this evil from our city, thereby protecting our citizens in the purchase of goods at their doors, on the streets, or anywhere within the city limits.

The work of this department has increased to such an extent that it is impossible for one person to perform it all, even with what little assistance the sealer is allowed to employ. Much of his time is used in the inspection of charcoal baskets, for which there is no compensation, and it is hoped that your Honorable Body will consider favorably this part of the duties the sealer is obliged to perform.

I heartily appreciate the uniform kindness and courtesy I have received from all connected with the different departments, and with the wish for you all a happy and prosperous year for 1894,

I am yours very respectfully,

ALBERT F. ROBERTS,
Sealer.

REPORT

OF THE

INSPECTOR OF MILK AND VINEGAR.

CAMBRIDGE, November 30, 1893.

To the Honorable the Mayor and City Council of Cambridge:

GENTLEMEN: I have the honor to submit the following report of the work of the department for the inspection of milk and vinegar for the year ending November 30, 1893: —

There has been no change in the law relating to the sale and inspection of milk during the year, and the collection and analysis of samples has been carried on in the same manner as described in former reports upon the subject. Since a recent decision of the Supreme Court (Commonwealth *vs.* Vieth), in which it was held that this law applied to milk sold in restaurants, even when drank upon the premises, the collector has been instructed to procure samples from all such places. Comparatively few samples have so far been taken from restaurants, but enough to show a great variation in the quality of milk thus procured. A notice was sent previous to beginning these collections to all the restaurants, of which it was possible for the Inspector to find the address, stating that the milk law applied to the milk sold in this manner, and that dealers must see to it that their milk conformed to the standard. The milk procured from stores and teams during the past year has been found on the whole of rather better quality than in former years; skimming and watering still constitute the usual forms of adulterations, and though some of the poorer samples are likewise colored, still, as they fail to conform to the standard for pure milk, complaint is made on this ground and not on the ground of artificial coloring.

Licenses for the sale of milk and oleomargarine have been issued as formerly described; these licenses have an abstract of

the law printed on their back, so that no one can complain of not knowing the regulations for the sale of these articles of food. Stores are obliged to take out a license for the sale of milk, which is good so long as business is done in the same place and under the same name; all other persons who sell milk are required to take out a license annually. All persons selling oleomargarine, whether from a store or a team, are required to take out an annual license; the cost of both milk and oleomargarine licenses being fifty cents. The money collected from the sale of these licenses, amounting to $1 45.00, has been paid to the City Treasurer.

The number of licenses issued is as follows: —

Number of annual milk licenses	182
Number of store milk licenses	93
Number of olemargarine licenses	15
Whole number of licenses	290

The collection and analysis of samples of vinegar has been performed in the same manner as described in previous reports. Two qualities are recognized by the Statute, vinegar and cider vinegar; the former is required to have an acidity equal to four and one-half per cent. by weight of absolute acetic acid, the latter must contain in addition, two per cent. by weight of cider vinegar solids.

The quality of the vinegar examined this year has shown an improvement over that of former years, and although undoubtedly a good deal of what is sold to purchasers as cider vinegar will not come up to the required standard, still when the same vinegar is bought for analysis, the collector is carefully informed that it is not sold for cider vinegar but for ordinary vinegar.

No license is required for the sale of vinegar.

Early in the summer the following notice was sent to all persons selling butter or oleomargarine whose address the Inspector could learn, and this fall to all the restaurants; soon after the collection and analysis of samples of butter was begun: —

CITY OF CAMBRIDGE.

DEPARTMENT OF MILK INSPECTION.

Important Notice to Dealers in Oleomargarine.

OFFICE OF THE INSPECTOR OF MILK,
CITY HALL, CAMBRIDGE.

After this date the law in regard to the sale of Oleomargarine will be strictly enforced in this city, and any one found selling it contrary to the Statute will be prosecuted without previous warning. An abstract of the law is given below:—

Whoever sells any substance made in imitation of or as a substitute for butter, not made wholly of milk or cream, shall have the words "adulterated butter" or "oleomargarine" stamped upon the top and side of every box containing any of said article, in letters of plain Roman type not less than one-half inch in length, and in case of retail sale, shall deliver to the purchaser a wrapper stamped with the same words in a similar manner.

Penalty for infringing the above regulation, or for erasing or defacing the marks on boxes or wrappers, a fine of one hundred dollars for first offence, and two hundred dollars for each subsequent offence.

Whoever sells oleomargarine from a box or firkin marked with the word "diary" or "creamery" shall be subject to above penalty.

Whoever sells oleomargarine colored so as to resemble butter, shall be subject to above penalty.

Every person before commencing to sell oleomargarine, is required to procure a license from the inspector of milk of the town or city in which sales are to be made. Penalty for neglecting to take out a license, a fine not exceeding one hundred dollars.

F. A. DUNBAR,
Inspector of Milk.

CAMBRIDGE, May 1, 1893.

Samples are collected as follows: The collector looks over all the tubs of butter exposed for sale in a store and finally takes a sample from one of them, looking especially to see if there is any mark on the tub to indicate that the contents are not pure butter. In the case of a team he looks over the tubs in the same way before taking a sample; and when taking a sample from a restaurant he goes in and asks for bread and butter like an ordinary customer, taking away for analysis the piece of butter brought with the bread.

These samples of butter are analyzed as follows: Six or eight grammes are melted and filtered; then five grammes of the filtered fat are placed in a flat-bottomed glass flask, two grammes of potassic hydrate and ten grammes of seventy per cent. alcohol are added, and the flask heated until the fat is completely saponified and most of the alcohol driven off. The butter soap is then dissolved in one hundred cubic centimeters of water and fifty cubic centimeters of ten per cent. sulphuric acid added; this decomposes the soap and liberates the fatty acids; the contents of the flask are then heated to boiling, the steam passed through a condenser, and the process continued until one hundred cubic centimeters of distillate have come over. Fifty cubic centimeters of this distillate are then filtered, and the volatile fatty acids which have come over during the distillation, are neutralized with a decinormal solution of sodic hydrate.

In case the original fat was butter, from twelve to fourteen cubic centimeters of the sodi chydrate solution are required; if, however it was oleomargarine hardly more than one cubic centimeter is needed, thus allowing a very wide margin for any errors arising during the process, which errors could hardly make a difference of more than one cubic centimeter in the amount of soda solution used. Each sample of butter has to be submitted to this process separately, and as the analysis requires about two hours for its completion, only a limited number of samples can be analyzed. As a rule no warning is sent when a dealer is found selling oleomargarine contrary to law, but a complaint is immediately instituted, the previous notice mailed to him being considered as a warning. The following table will show the number of samples of milk, vinegar and butter collected and analized during the year, together with the results of the analyses, etc.:—

Number of samples collected	2,065
" " " of milk	1,882
" " " " of standard quality	1,620
" " " " not of standard quality	262
" " warnings sent for sale of poor milk	179
" " complaints made for sale of poor milk	8
" " samples of vinegar collected	108
" " samples of vinegar of standard quality	98
" " samples of vinegar not of standard quality	10

Number of warnings sent for sale of poor vinegar	8
" " complaints made for sale of poor vinegar	2
" " samples bought as pure butter	75
" " samples shown by analysis to be pure butter	72
" " samples shown by analysis to be oleomargarine	3
" " complaints made for selling oleomargarine	2
Amount of fines imposed	$560

Last spring it was made the duty of the Inspector of Milk to examine the ice offered for sale in this city, and make such examinations and analyses as seemed necessary in order to determine its quality; this has been done during the summer and fall with the result of showing a great difference in the purity of the ice supplied. It is a popular idea that water purifies itself by freezing, and that ice can be safely used when taken from a source which would be at once condemned if the water were to be used in the liquid condition; this is true to only a very limited extent, many of the most dangerous impurities in water are not at all affected by freezing, and the rest to only a very slight degree. It should be made a rule that any pond or stream which would not be considered a fit source of supply for water should not be used for cutting ice intended for domestic use. That this rule is by no means observed is clearly shown by the analyses made of some of the samples of ice collected in this city which samples were evidently from a scource not giving water of sufficient purity for domestic use. Now, as it is an almost universal habit in this country to cool drinking water by dissolving pieces of ice in it, there is no question but what the purity of the ice is of as much importance as that of the drinking water and until the ice is of as good quality as the water, it is certainly unsafe to use it in this way; the drinking water should never be allowed to come in contact with such ice, but should be cooled by surrounding the vessel containing it with ice, and not by putting ice into it.

The present ordinance makes it the duty of the Inspector to examine the source of supply and make analyses of samples of ice intended for domestic use, and to give copies of such analyses to the City Clerk and the Board of Health; but neither he nor any one else is directed to do any thing in regard to the sale of ice, so that no matter how bad any dealer's supply of ice is

shown to be, he can continue to sell it so long as he can find purchasers. Some further regulations are very much needed.

Samples of ice are collected as follows: A piece of ice is taken, broken up, and the pieces washed under a tap if possible, and then put into a clean glass jar, the cover fastened down and the jar labelled. When the ice is melted the water is analyzed, as follows: The total solids are found by evaporating a known quantity of water in a platinum dish, over boiling water, until the residue is perfectly dry. Then, on weighing and subtracting the weight of the dish, you have the amount of solid residue. By heating the dish to redness and again weighing, the amount of organic matter may be found. Chlorine is determined by dropping into a known quantity of water a solution of nitrate of silver of known strength (a few drops of a potassic chromate solution being added to the water as an indicator), until the color changes from yellow to red. This occurs when all the chlorides have been decomposed by the silver solution, and the amount of chlorine is easily calculated. The amount of free and albuminoid ammonia is found by distilling and nesslerising a known quantity of water; the brown color produced in the distillate by the nessler reagent is matched by adding an ammonia solution of known strength to an equal quantity of ammonia free-distilled water until the nessler reagent produces a color similar to the first; the amount of ammonia in the sample is calculated from the amount of ammonia solution used in producing a similar color.

The amount of solids, chlorine and ammonia found in a sample of water, together with some knowledge of its source, enable a very fair estimate to be made of its quality. The following analyses are from samples of ice intended for sale in this city:—

Parts per 100,000.

	Total Solids.	Chlorine.	Free Ammonia	Albuminoid Ammonia.
Sample of ice from H. D. & W. S. Durgin, June 9, 1893, cut at Spy Pond, Arlington, Mass	5.00	0.84	0.004	0.006
Sample of ice from H. D. & W. S. Durgin, June 9, 1893, cut at Smith Pond, Belmont Mass	3.00	0.70	0.002	0.010
Sample of ice from Cambridge Ice Co., June 15, 1893, cut at little Fresh Pond, Cambridge, Mass	4.20	1.30	0.002	0.008
Sample of ice from Boston Ice Co., June 20, 1893, cut at Horn Pond, Woburn, Mass	3.40	0.70	0.005	0.053
Sample of ice from Independent Ice Co., June 20, 1893, cut at Hudson, Mass	15.7	1.10	0.003	0.063
Sample of ice from Fresh Pond Ice Co., June 20, 1893, cut at Brookline, N. H	5.7	0.43	0.001	0.014
Sample of ice from Harvard Ice Co., June 10, 1893, bought from Fresh Pond Ice Co	5.7	0.43	0.005	0.008
Sample of ice from drivers' Union Ice Co., June 20, 1893, cut at Wolfborough Junction, N. H	3.00	0.50	0.001	0.008
Sample of ice from H. D. & W. S. Durgin, November 20, 1893, cut at Spy Pond, Arlington, Mass	5.70	0.43	0.006	0.014
Sample of ice from Cambridge Ice Co., November 5, 1893, cut in New Hampshire	4.30	0.23	0.001	0.005
Sample of ice from Boston Ice Company, October 3, 1893, cut at North Chelmsford	7.00	0.43	0.002	0.011
Sample of ice from Independent Ice Co., November 5, 1893, cut at Mary Lake, Hudson, Conn	5.70	1.90	0.060	0.020
Sample of ice from Fresh Pond Ice Co., November 16, 1893, cut at Brookline, N. H	7.00	0.57	0.002	0.007
Sample of ice from Harvard Ice Co., November 5, 1893, bought from Fresh Pond Ice Co	3.00	0.57	0.020	0.023
Sample of ice from Drivers' Union Ice Company, November 5, 1893, cut at Wenham Lake, Mass	5.70	0.71	0.003	0.006

The annual appropriation for this year, and the way it has been expended, are shown in the following table:—

Salaries	$1,000 00
Horse hire	52 50
Paid for milk and vinegar samples	74 62
Car tickets	30 00
Expenses for collecting samples	71 79
Printing	25 45
Chemicals, glassware and incidentals	44 40
Balance	1 24
Total appropriation	$1,300 00

Respectfully submitted,

F. A. DUNBAR,

Inspector of Milk and Vinegar.

REPORT

OF THE

Inspector of Provisions and of Animals Intended for Slaughter or Kept for the Production of Milk.

To the Honorable the City Council: —

GENTLEMEN: In accordance with the requirements of the ordinance in relation to the inspection of animals intended for slaughter or kept for the production of milk, I beg leave to submit the following report for the seven months, from May 1st to November 30th, 1893.

In compliance with an order from the Cattle Commissioners of the State, I have inspected cattle as required by them twice this year, viz.: In October and November, after they are taken up from the pasture, and in May before turning out to pasture. Acting under printed instructions issued by the Commissioners, I have inspected 302 animals, consisting of milch cows, dry cows, bulls and calves, and have found them all free from any contagious diseases. All hogs butchered in this city are inspected by inspectors appointed by the Bureau of Animal Industry at Washington.

The above report of so healthy a condition of animals cannot be said of horses. In Wards Two and Three, glanders and farcy have been found to an alarming extent. Thirty-two horses have been quarantined as supposed to be affected by contagious diseases, twenty-four of which were condemned and destroyed and eight were released to their owners.

In my opinion the cause of this enzootic has been found and removed.

The horses owned by the city have been free from any enzootic and are in a healthy condition. I have made two hundred and two visits at the various departments of the city having horses under their charge; eighteen horses have been examined for soundnesss; one examination of horse injured.

Respectfully submitted,

CHARLES E. HADCOCK, M. D. V.,

Inspector of Provisions.

REPORT

OF THE

PARK COMMISSIONERS.

CAMBRIDGE, December 14, 1893.

To the Honorable the City Council of the City of Cambridge:

GENTLEMEN: The Commissioners appointed under the Act entitled "An Act relative to Public Parks in the City of Cambridge" have the honor to submit the following as their first annual report, as required by Section IV. of the ordinance establishing a Park Department.

The organization as a Board was completed on July 31, and since that time the Commissioners have given daily attention to their duties. On October 17 the Commissioners made the following recommedation, which was read in both branches of the City Council, and in concurrence was referred to the Finance Committee: —

To the Honorable the City Council of the City of Cambridge:

GENTLEMEN: The commission appointed under the Act entitled "An Act relative to Public Parks in the City of Cambridge" met for organization July 31, 1893, and at that time voted to secure the services of the well known firm of landscape architects, Messrs. Olmstead, Olmstead & Eliot. These gentlemen visited Cambridge, August 15, 1893, and again on the 22nd of the same month, and examined closely the grounds now owned and devoted to public use by the city. They also examined all the available open spaces, including the entire river front, studying carefully the location and the adaptability of each for the purpose of a broad and comprehensive system of public parks. From the preliminary examination, they submitted on September 30, 1893, a diagram of the city, showing the location of these various lots, together with a brief report suggesting their ideas as to the proper treatment of them.

It was the intention of the Board to make their first report full and complete, mentioning all the different plots of land deemed desirable to

recommend to the City Council, but they find the many details of boundaries, titles, values and rights of individuals will require much more time than they expected.

Owing to this fact, the Board feels it incumbent upon it to call the attention of the City Council to two properties, the Binney field and the Rindge field, upon which they consider immediate action is necessary. These properties were offered to the city through the committee of 1892, upon what was then considered very favorable terms, and the committee at that time unanimously recommended their purchase. Since then the Rindge field has been offered for sale, and advertisements to that effect were placed in the Cambridge papers, but have been withdrawn at the request of the Commissioners. It has also come to their attention that building operations were about to be begun on a portion of the Binney field, a permit for the same having just been granted by the Inspector of Buildings, and further that a block of ground contained within a section of the same field has been offered for sale to other parties.

The Board earnestly feels that these properties should be included in the proposed park system for the city, and in this view they are supported by their advisers, the landscape architects. Therefore they unanimously recommend to the City Council that the city take by right of eminent domain for park purposes that portion of Binney field bounded as follows: Northerly by the southerly side of Cambridge street 528.52 feet; easterly by the westerly side of Berkshire street, proposed, 1087.14 feet; southerly by the northerly side of York street, proposed, 515 feet; westerly by the easterly side of Willow street, proposed, 963.98 feet, containing about 528.154 square feet, including about 59,425 square feet, the area of proposed streets, the same being shown upon a plan of the premises on file in the office of the City Engineer.

The owners of the land included in the areas of proposed Berkshire, York, and Willow streets, which surround the territory named, agree to co-operate with the city in establishing and building these streets to the extent of the cost of filling these streets to grade between their respective abutting lands and to the centre lines of the streets, releasing to the city without consideration the fee in the entire streets; reserving, however, to themselves and to their heirs and assigns, right of way and drainage and all other uses now or hereafter lawful in highways in, through and over such streets.

Also, that the city purchase, for a sum not to exceed $31,000, a parcel of land offered for sale, situated on the southerly side of Spruce street, being a part of the Rindge field, so-called, described as follows: Beginning at a point in the southwesterly line of Spruce street, 100.62 feet; northwesterly from the southwesterly intersection of Spruce and Groveland streets, thence running northwesterly along said line of Spruce street 342.23 feet, to land now or formerly of Margaret McLean. Thence turning and running southerly along said land of Margaret

McLean and persons unknown 1011.57 feet to northerly location line of Fitchburg Railroad. Thence turning and running southeasterly along said northerly location line of the Fitchburg Railroad 603.67 feet to land now or formerly of Mary A. Davenport. Thence turning and running northerly along said land of Mary A. Davenport 589.36 feet, to land now or formerly of J. B. Remick. Thence turning and running westerly along said land of J. B. Remick and southerly line of Groveland street 170.5 feet, more or less, to the westerly line of Groveland street 276.59 feet to the land of the City of Cambridge. Thence turning and running westerly along said land of the City of Cambridge about 96.5 feet. Thence turning and running northerly along said land of the City of Cambridge 163.8 feet to the point of beginning, containing 501,729 square feet, more or less. Most of this parcel can be used for a park and the remainder devoted to other public purposes or otherwise disposed of.

On November 28 the Finance Committee reported orders recommending the appropriation of $110,000 for the purchase of and the taking of the two parcels of land known as the Binney field, and Rindge field, which orders were approved November 28, and December 1, respectively.

A detailed statement of the expenses of the Department accompanies this report, all of which is respectfully submitted.

HENRY D. YERXA,
JNO. O'BRIEN,
GEO. HOWLAND COX,
} *Commissioners.*

Expenditures of the Park Department.

Amount appropriated July 11, 1893	$500 00
Amount expended to December 1, 1893	339 13
Unexpended balance	$160 87

The above amount, $339.13, was expended as follows :

Office furniture	$61 50
Carriage hire	42 00
Stationery	34 48
Door keys	1 15
Olmsted, Olmsted & Eliot, landscape architects	200 00
	$339 13

APPENDIX.

CITY OF CAMBRIDGE,
IN COMMON COUNCIL, March 29, 1892.

Ordered: That His Honor the Mayor be requested to petition the General Court now in session for the passage of an Act authorizing the city to borrow, outside of its debt limit, a sum not exceeding two hundred thousand dollars, for the purpose of purchasing and improving lands within the city limits for play grounds and parks for the use of its inhabitants.

[*Read once and laid on the table.*]

April 5, 1892, taken from the table and amended by adding thereto the following: —

"And further authorizing the city to take, maintain and hold in fee or otherwise, and by gift upon such conditions as the City Council may deem advisable, or by purchase or otherwise, for the purpose of play grounds and parks, such lands with any structures that may be thereon, within the city limits as it may from time to time deem suitable."

[*Passed in Common Council. Came up for concurrence. Read and concurred.*]

[*Approved by the Mayor, April* 13, 1892.]

COMMONWEALTH OF MASSACHUSETTS.

(Chapter 341).

In the year one thousand eight hundred and ninety-two, "An Act to authorize the City of Cambridge to lay out and maintain public parks." Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows: —

SECTION 1. The City of Cambridge, by its City Council, at any time within three years after the passage of this Act, may take, hold, by purchase or otherwise, any and all such real

estate and lands within said city as it may deem advisable, and may lay out, maintain and improve the same as a public park or parks.

SECT. 2. The said city shall, within sixty days after the taking of any lands and real estate as aforesaid, otherwise than by purchase or gift, cause to be recorded in the registry of deeds for the southern district of the county of Middlesex a description thereof sufficiently accurate for identification, with a statement of the purposes for which the same were taken, which statement shall be signed by the Mayor.

SECT. 3. Said city shall be liable to pay all damages sustained by any persons or corporations by the taking of, or injury to, any of their land, real estate or property, for the purposes aforesaid. If any person sustaining damage as aforesaid does not agree with said city upon the amount of said damage, he may, within one year from such taking, and not afterwards, apply by petition for an assessment of the damage to the Superior Court in said County of Middlesex. Such petition may be filed in the clerk's office of said court, and the clerk shall thereupon issue a summons to the said city, returnable on the first Monday of the next month after the expiration of fourteen days from the filing of the petition, to appear and answer to the petition. The summons shall be served fourteen days at least before the day at which it is returnable, by leaving a copy thereof, and of the petition, certified by the officer who serves the same, with the clerk of said city; and the court may, upon default of hearing of said city, appoint three disinterested persons who shall, after reasonable notice to the parties, assess the damages, if any, which such petitioner may have sustained as aforesaid, together with interest at the rate of four per centum per annum from the date of the actual entry and taking possession of by said city. And the award of the persons so appointed or a major part of them being returned into and accepted by the court shall be final, and judgment shall be rendered and execution issued thereon for the prevailing party, with costs, unless one of the parties claims a trial by jury, as hereinafter provided.

SECT. 4. If either of the parties mentioned in the preceding section is dissatisfied with the amount of damage awarded, as therein expressed, such party may, at the sitting at which

such award was accepted, or next sitting thereafter, claim in writing a trial in said court, and have a jury to hear and determine at the bar of said court all questions of fact relating to such damages, and to assess the amount thereof with interest as aforesaid; and the verdict of the jury being accepted and recorded by the court shall be final and conclusive, and judgment shall be rendered and execution issued thereon, and costs shall be recovered by the parties, respectively, in the same manner as is provided by law in regard to proceedings relating to the laying out of highways.

SECT. 5. In every case of a petition to the Superior Court for an assessment of damages as provided in this Act, the said city may tender to the petitioner or his attorney any sum, or may bring the same into court to be paid to the petitioner, for the damages by him sustained or claimed in his petition, or may in writing offer to be defaulted and that damages may be awarded against it for the sum therein expressed; and if the petitioner does not accept the sum so offered and tendered, with his costs up to that time, but proceeds with his suit, he shall be entitled to his costs to the time of such tender or payment into court, or offer of judgment, and shall not be entitled to either costs or interest afterwards, unless the amount recovered by him in such action exceeds the amount so tendered.

SECT. 6. At any time within two years after any land is taken or purchased for a park or parks under this Act, the Board of Aldermen of said City of Cambridge, if in its opinion any real estate in said city receives any benefit and advantage from such taking or purchasing, or from the locating and laying out of a park or parks under this Act, beyond the general advantages to all real estate in said city, may adjudge and determine the value of such benefit and advantage to any such real estate, and may assess upon the same a proportional share of the cost of land so purchased or taken, and of the expense of laying out, grading and making such park or parks; but in no case shall the assessment exceed one-half of the amount of such adjudged benefit and advantage. Said real estate subject to such assessment may include the remainder of the land of which a part is taken for said public park or parks, and real estate which does not abut upon the park, from the laying out of

which the betterments accrue, or upon a street or way bounded upon such park.

SECT. 7. Assessments made under the preceding section shall constitute a lien upon the real estate so assessed and shall be collected and enforced, with the same rights to owners to surrender their estates, and the same proceedings thereupon, and with the same rights of and proceedings upon appeal, as are provided by chapter fifty-one of the Public Statutes.

SECT. 8. For the purpose of defraying the cost of such real estate and lands as may be purchased, taken or held for the purposes aforesaid, and of constructing the park or parks authorized by this Act, and paying all expenses incident thereto, the City Council of Cambridge shall have authority to issue, in excess of the limit allowed by law, scrip or bonds to be denominated on the face thereof, Cambridge Park Loan, to an amount not exceeding two hundred thousand dollars, bearing interest not exceeding four and one-half per centum per annum, payable semi-annually, the principal to be payable at periods of not more than thirty years from the issuing of such scrip or bonds respectively. Said City Council may sell the same or any part thereof from time to time, or pledge the same for money borrowed for the above purposes; but the same shall not be sold or pledged for less than the par value thereof. The provisions of the tenth and eleventh sections of chapter twenty-nine of the Public Statutes shall, as far as applicable, apply to this Act.

SECT. 9. If the City of Cambridge shall accept the provisions of chapter one hundred and fifty-four of the Acts of the year eighteen hundred and eighty-two, and Acts in amendment thereof, and all lands and real estate which may be taken by virtue of this Act shall be under the care and management of the board of park commissioners of said city authorized to be appointed by virtue of said Act.

SECT. 10. This Act shall take effect upon its acceptance by the City Council of Cambridge. (*Approved June* 2, 1892.)

CITY OF CAMBRIDGE,
IN BOARD OF ALDERMEN, February 21, 1893.

Ordered: That the Mayor be and hereby is requested to petition in the name and behalf of the City of Cambridge, to the General Court, at its present session, for such further amendments to Chapter 341 of the Acts of the year 1892, in addition to the amendments already petitioned for, which petition is now pending before the Legislature, as will enable the City to borrow for park purposes outside of its debt limit, the sum of $300,000, in addition to the amount allowed to be so borrowed by said Act.

Sent down for concurrence, February 21, 1893.
In Common Council, February 21, 1893, *concurred.*
Approved by the Mayor, February 23, 1893.

COMMONWEALTH OF MASSACHSUETTS.

[Chap. 337.]

In the year one thousand eight hundred and ninety-three, "an act relative to public parks in the City of Cambridge." Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows: —

SECTION 1. Section one of chapter three hundred and forty-one of the acts of the year eighteen hundred and ninety-two is hereby amended by striking out in the second line, the words "within three years," by inserting in the fifth line, after the word "advisable," the words: "Upon the recommendation of the Board of Park Commissioners hereinafter mentioned," and by adding at the end thereof the words: "The fee of such real estate and lands shall vest in said city," so as to read as follows: — "*Section* 1. The City of Cambridge, by its City Council, at any time after the passage of this Act, may take and hold, by purchase or otherwise, any and all such real estate and lands within said city as it may deem advisable, upon the recommendation of the Board of Park Commissioners hereinafter mentioned, and may lay out, maintain and improve the

same as a public park or parks. The fee of such real estate and lands shall vest in said city."

SECT. 2. Section eight of said chapter is hereby amended by striking out in the ninth line, the word "two," and inserting in place thereof the word "five," so as to read as follows:—*Section* 8. For the purpose of defraying the cost of such real estate and lands as may be purchased, taken or held for the purposes aforesaid, and of constructing the park or parks authorized by this act, and paying all expenses incident thereto, the city council of Cambridge shall have authority to issue, in excess of the limit allowed by law, scrip or bonds to be denominated on the face thereof, Cambridge Park Loan, to an amount not exceeding five hundred thousand dollars, bearing interest not exceeding four and one-half per centum per annum, payable semi-annually, the principal to be payable at periods of not more than thirty years from the issuing of such scrip or bonds respectively. Said City Council may sell the same or any part thereof from time to time, or pledge the same for money borrowed for the above purposes; but the same shall not be sold or pledged for less than the par value thereof. The provisions of the tenth and eleventh sections of chapter twenty-nine of the Public Statutes shall, so far as applicable, apply to this act.

SECT. 3. Said city may make rules for the use and government of such park or parks, and for breaches of such rules affix penalties, not exceeding twenty dollars for one offence, to be imposed by any court of competent jurisdiction; may appoint a police force to act in such parks, and generally may do all acts needful for the proper execution of the powers and duties granted to or imposed upon such city by this act and said chapter; *provided*, *however*, that no land shall be taken, or any other thing involving an expenditure of money be done under this act or said chapter until an appropriation sufficient to cover the estimated expense thereof shall have been made by a vote of two-thirds of each branch of the city council; and such expenditures shall in no case exceed the appropriations made therefor, and all contracts made for expenditures beyond the amount of such appropriations shall be void.

SECT. 4. All the rights, powers and authority given to the

City of Cambridge by this Act and by said chapter, except for the taking of land and assessment of betterments, shall be exercised by said city, subject to all duties, liabilities and restrictions herein contained, through a board of persons to be appointed by said city, who shall be styled Park Commissioners.

SECT. 5. Section nine of chapter three hundred and forty-one of the Acts of the year eighteen hundred and ninety-two is hereby repealed.

SECT. 6. This Act shall take effect upon its acceptance by the City Council of Cambridge. [*Approved May* 12, 1893.]

REPORT

OF THE

SCHOOL COMMITTEE FOR 1893.

In compliance with Section 142 of the Rules and Regulations, the Superintendent herewith submits his nineteenth annual report for the year ending December 31, 1893.

Population of Cambridge.

1840	8,409	1870	39,634
1850	15,215	1875	47,838
1855	20,473	1880	52,699
1860	26,060	1885	59,658
1865	29,112	1890	70,028

Estimated population, 1893, 80,000.

School Census.

Number of children in the city on the first of May, five years old or more but less than fifteen, as reported by the Truant Officers.

1875	8,128	1885	10,957
1876	8,218	1886	11,131
1878	8,422	1887	11,216
1879	8,885	1888	11,727
1880	9,390	1889	11,750
1881	9,582	1890	11,971
1882	10,370	1891	12,160
1883	10,490	1892	12,451
1884	10,682	1893	12,644

Schools and Class-rooms.

Latin School	1	Class-rooms in use		8
English High School	1	" " "		13
Grammar Schools	11	" " "		128
Primary Schools	21	" " "		110
Kindergartens	7	" " "		8
Evening Drawing Schools	2	" " "		7
Evening High School	1	" " "		6
Evening Elementary Schools	3	" " "		12
Whole number of Day Schools				41
Number of class-rooms for Day Schools				267

High School and Grammar School Houses.

School Houses.	Number of Class-rooms.	Estimated Value.	Size of Lots, sq. ft.	Estimated Value.	Total Value.
Latin	8*	$40,000	37,828	$15,900	$55,900
English High	11†	220,000	74,366	18,000	238,000
Allston	12‡	30,000	15,193	4,600	34,600
Corlett	2	3,000	10,000	1,000	4,000
Harvard	16‡	45,000	20,494	12,000	57,000
Morse	14‡	73,000	25,650	7,000	80,000
Peabody	6	27,000	21,813	7,000	34,000
Putnam	13‡	60,000	11,900	8,300	68,300
Shepard	11	30,000	14,755	7,000	37,000
Thorndike	12	30,000	10,027	4,000	34,000
Washington	12‡	25,000	14,951	7,000	32,000
Webster	16‡	50,000	25,839	9,000	59,000
Wellington	13‡*a*	42,000	27,673	8,300	50,300
Total	146	$675,000	310,489	$109,100	$784,100

*Also a library, a physical laboratory, and an assembly hall.

†Also five recitation rooms, a library, a physical laboratory, a chemical laboratory, a lecture room, a drawing-room, and an assembly hall.

‡ Also an assembly hall.

‡ *a* On the same lot there is another schoolhouse containing four rooms used for primary classes.

Primary School Houses.

School Houses.	Number of Class-rooms.	Estimated Value.	Size of Lots, sq. ft.	Estimated Value.	Total Value.
Agassiz	7	$18,000	19,689	$6,000	$24,000
Boardman	8	12,000	10,018	4,000	16,000
Cushing	2	3,000	14,787	1,000	4,000
Dana	4	2,000	14,317	4,300	6,300
Dunster	4	4,000	10,000	2,000	6,000
Felton	4	6,000	15,090	4,500	10,500
Gannett	5	12,000	15,434	3,000	15,000
Gore	12	25,000	9,900	4,000	29,000
Holmes	4	6,000	11,182	4,500	10,500
Lassell	4	8,000	10,000	2,500	10,500
Lowell	4	7,000	12,033	2,500	9,500
Otis	8	12,000	8,270	4,000	16,000
Parker	6	17,600	12,329	7,000	24,600
Quincy	2	10,000	8,469	5,000	15,000
Reed	4	4,000	12,000	1,200	5,200
Riverside	4	5,000	11,192	3,000	8,000
Sargent	4	3,000	9,995	4,000	7,000
Stearns	4	3,000	10,050	5,000	8,000
Tarbell	4	8,000	19,500	4,000	12,000
Willard	12	25,000	20,079	5,000	30,000
Wyman	6	6,000	14,347	3,000	9,000
Primary Total	112	$196,600	268,681	$79,500	$276,100
Grammar "	127	415,000	198,295	75,200	490,200
High Schools "	19	260,000	112,194	33,900	293,900
Summary	258	$871,600	579,170	$188,600	$1,060,200

Number of teachers in the Day Schools.

[Special teachers are included in the total.]

December.	Latin School.	English High School.	Grammar Schools.	Primary Schools.	Kindergartens.	Total.	Normal Graduates.
1888	10	12	115	102	..	241	155
1889	10	14	118	100	7	251	142
1890	10	15	121	101	11	263	146
1891	10	16	126	104	11	272	161
1892	10	19	131	106	12	284	166
1893	11	19	138	108	13	297	171

Attendance at all the Day Schools.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1880	8,537	7,175	6,614	92.2
1885	10,213	8,650	7,915	91.5
1890	11,914	10,089	9,325	92.4
1891	12,468	10,520	9,659	91.8
1892	12,845	10,861	9,959	91.7
1893	13,107	11,045	10,074	91.2

Attendance at the Latin School.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1888	247	228	217	95.1
1889	239	217	207	95.5
1890	224	204	199	96.4
1891	231	213	204	95.7
1892	238	213	203	95.4
1893	269	251	236	94.1

Attendance at the English High School.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1888	343	304	290	95.3
1889	397	345	331	96.1
1890	473	409	396	96.7
1891	552	480	464	96.6
1892	624	529	511	96.5
1893	681	569	549	96.5

Attendance at the Grammar Schools.

Year.	Number of pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1888	5,421	4,760	4,427	93.0
1889	5,602	4,864	4,517	92.9
1890	5,668	4,891	4,557	93.2
1891	5,793	5,052	4,701	93.1
1892	5,891	5,175	4,803	92.8
1893	5,981	5,206	4,838	92.9

Attendance at the Primary Schools.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1888	5,485	4,465	4,031	90.3
1889	5,617	4,537	4,086	90.0
1890	5,321	4,403	4,011	91.1
1891	5,499	4,481	4,065	90.7
1892	5,697	4,650	4,203	90.4
1893	5,757	4,666	4,215	90.3

Attendance at the Kindergartens.

Year.	Number of Pupils Registered.	Average Number Belonging.	Average Daily Attendance.	Per cent of Attendance.
1890	228	183	163	89.6
1891	393	294	225	76.7
1892	395	294	239	81.2
1893	419	353	236	66.9

Number of pupils admitted to the Latin School.

Course, 5 years.

Year.	Boys.	Average Age.	Girls.	Average Age.
1887	49	14 yrs. 9 mos.	37	14 yrs. 6 mos.
1888	36	14 yrs. 7 mos.	24	15 yrs. 0 mos.
1889	37	14 yrs. 10 mos.	34	14 yrs. 7 mos.
1890	39	14 yrs. 6 mos.	22	14 yrs. 9 mos.
1891	32	14 yrs. 5 mos.	35	14 yrs. 3 mos.
1892	52	14 yrs. 7 mos.	32	14 yrs. 7 mos.
1893	63	14 yrs. 6 mos.	41	14 yrs. 1 mos.

Number of pupils graduated from the Latin School.

Course, 5 years.

Year.	Boys.	Average Age.	Girls.	Average Age.
1887	4	18 yrs. 0 mos.	7	18 yrs. 9 mos.
1888	13	18 yrs. 7 mos.	9	19 yrs. 0 mos.
1889	16	18 yrs. 11 mos.	11	19 yrs. 3 mos.
1890	10	18 yrs. 8 mos.	7	19 yrs. 2 mos.
1891	25	18 yrs. 6 mos.	16	18 yrs. 9 mos.
1892	8	17 yrs. 8 mos.	14	18 yrs. 7 mos.
1893	16	19 yrs. 3 mos.	7	19 yrs. 5 mos.

Number of pupils admitted to the English High School and the Manual Training School.

[The Manual Training School is connected with the English High School.]

Year.	English High. Course, 4 yrs.	Average Age.	Manual Training. Course, 3 years.	Average Age.
1888	147	15 yrs. 2 mos.	47	15 yrs. 2 mos.
1889	205	15 yrs. 3 mos.	52	15 yrs. 3 mos.
1890	181	15 yrs. 1 mo.	63	15 yrs. 3 mos.
1891	202	15 yrs. 1 mo.	58	15 yrs. 5 mos.
1892	230	15 yrs. 3 mos.	85	15 yrs. 3 mos.
1893	210	15 yrs. 3 mos.	73	15 yrs. 1 mo.

Number of pupils graduated from the English High School and the Manual Training School.

[The Manual Training School is connected with the English High School.]

Year.	English High. Course, 4 yrs.	Average Age.	Manual Training. Course, 3 years.	Average Age.
1888	41	18 yrs. 11 mos.	Course changed to 4 years in 1893.	In 1893, 6 of the 32 in 4 years' course.
1889	59	18 yrs. 7 mos.		
1890	37	18 yrs. 7 mos.		
1891	35	18 yrs. 4 mos.	13	17 yrs. 4 mos.
1892	52	18 yrs. 9 mos.	25	18 yrs. $\frac{1}{4}$ mo.
1893	63	18 yrs. 10 mos.	32	18 yrs. $\frac{3}{4}$ mo.

Number of pupils graduated from the Grammar and Primary Schools.

Year.	Grammar Schools. Course, 6 yrs.	Average Age.	Primary Schools. Course, 3 yrs.	Average Age.
1892	536	15 yrs. $\frac{4}{5}$ mo.	1146	9 yrs. 10 mos.
1893	487	14 yrs. 11 mos.	1147	9 yrs. 9 mos.

Length of time in completing the Course of Study.

Grammar Schools. Course, 6 years.

Year.	In 4 years.	In 5 years.	In 6 years.	In 7 years or more.
1892	10 per cent.	27 per cent.	45 per cent.	18 per cent.
1893	9 per cent.	29 per cent.	47 per cent.	15 per cent.

Primary Schools. Course, 3 years.

Year.	In 2 years.	In 2½ years.	In 3 years.	In 3½ years.	In 4 years.	In 4½ years or more.
1892	5 per cent.	.....	66 per cent.	.....	20 per cent.	9 per cent.
1893	6 per cent.	3 per cent.	56 per cent.	3 per cent.	20 per cent.	12 per cent.

Number of pupils in all the Day Schools at different periods of the year.

Year.	First day of the first week.	First day of the second week.	First week of October.	First week of June.
1891	9,580	10,461	11,180	10,863
1892	10,184	10,974	11,360	11,204
1893	10,692	11,354	11,628	11,342

Number of pupils in the Latin School, December, 1893.

Grade.	Boys.	Girls.	Total.	Per cent.
Fourteenth.....	18	16	34	.110
Thirteenth.....	27	19	46	.148
Twelfth.....	29	27	56	.180
Eleventh	40	29	69	.222
Tenth.....	66	40	106	.340
Total.....	180	131	311	

Number of pupils in the English High School, December, 1893.

Grade.	Boys.	Girls.	Total.	Per cent.
Thirteenth	21 (5)*	58	79	.121
Twelfth	48 (30)*	61	109	.166
Eleventh	91 (57)*	87	178	.271
Tenth	121 (80)*	169	290	.442
Total	281 (172)*	375	656	

Number of pupils in the Grammar Schools, December, 1893.

Grade.	Boys.	Girls.	Total.	Per cent.
Ninth	285	356	641	.118
Eighth	298	274	572	.104
Seventh	396	437	833	.151
Sixth	559	556	1,115	.202
Fifth	505	505	1,010	.183
Fourth	691	639	1,330	.242
Total	2,734	2,767	5,501	

Number of pupils in the Primary Schools, December, 1893.

Grade.	Boys.	Girls.	Total.	Per cent.
Third	681	683	1,364	.281
Second	766	712	1,478	.305
First	1,066	944	2,010	.414
Total	2,513	2,339	4,852	
Kindergartens	148	178	326	

*Manual Training School.

Number of pupils belonging to the Evening Drawing Schools with the average attendance.

1888.	1889.	1890.	1891.	1892.	1893.
216	228	166	188	219	242
101	120	106	110	127	142

Number of pupils belonging to the Evening Schools with the average attendance.

1888.	1889.	1890.	1891.	1892.	1893.
356	425	739	1,020	1,013	1,085
149	181	298	362	329	419

Number of pupils in the Private Schools in Cambridge including those in the Parochial Schools.

1888.	1889.	1890.	1891.	1892.	1893.
1,785	2,037	2,050	2,127	2,235	2,376

Cost of instruction in the Evening Schools.

Year.	Elementary.	High.	Drawing.	Total.
1888	$1,058 00	Opened Jan. 3, 1889.	$1,350 00	$2,408 00
1889	1,247 00	$855 00	1,230 00	3,332 00
1890	1,513 00	1,260 00	546 00	3,319 00
1891	1,851 50	1,191 25	867 00	3,909 75
1892	1,827 50	1,226 25	1,157 00	4,210 75
1893	2,124 50	1,363 00	1,531 00	5,018 50

Cost of instruction in the Day Schools.

[Salaries of teachers, superintendent, agent, and truant officers.]

Year.	Number of Teachers January 1.	Average Number of Pupils.	Whole Cost.	Cost per Pupil.
1876	176	7,066	$164,818 00	$23 32
1878	173	7,028	136,491 20	19 42
1880	182	7,175	130,371 75	18 17
1882	200	7,898	137,328 55	17 38
1883	212	8,194	144,457 60	17 63
1884	216	8,414	152,290 62	18 09
1885	224	8,650	158,640 13	18 33
1886	233	9,218	165,277 42	17 92
1887	237	9,429	172,135 06	18 25
1888	241	9,756	175,773 80	18 02
1889	251	9 962	180,816 26	18 15
1890	263	10,089	190,558 21	18 89
1891	272	10,520	196,938 70	18 72
1892	284	10,861	207,144 22	19 07
1893	297	11,045	215,593 12	19 52

Cost of the Day Schools.

[The expenditures for new schoolhouses are not included.]

Year.	Number of Teachers January 1.	Average Number of Pupils.	Whole Cost.	Cost per Pupil.
1876	176	7,066	$200,894 09	$28 43
1878	173	7,028	162,437 77	23 11
1880	182	7,175	153,967 56	21 45
1882	200	7,898	166,230 52	21 04
1883	212	8,194	177,149 93	21 62
1884	216	8,414	203,234 56	24 15
1885	224	8,650	206,806 09	23 90
1886	233	9,218	207,536 46	22 51
1887	237	9,429	222,679 19	23 61
1888	241	9,756	225,408 57	23 10
1889	251	9,962	229,421 31	23 03
1890	263	10,089	241,980 84	23 98
1891	272	10,520	249,491 67	23 71
1892	284	10,861	266,651 02	24 55
1893	297	11,045	274,053 82	24 81

Summary of the school census, as taken by the Truant Officers, May, 1893.

[The Statutes make it the duty of the School Committee to ascertain annually the names and ages of all persons between the ages of five and fifteen years, belonging in their respective towns and cities on the first day of May.]

Number of children in the city five years old or more, but less than fifteen	12,644
Number in public schools five years old or more, but less than fifteen	10,184
Number in public schools fifteen years old or more, as shown by the school register	1,179
Number in private schools five years old or more, but less than fifteen	1,594
Number not attending school five years old or more, but less than eight	549
Number not attending school eight years old or more, but less than fourteen	136
Number not attending school fourteen years old or more, but less than fifteen	181
Whole number not attending school five years old or more, but less than fifteen	866
Number in the city five years old or more, but less than six	1,168
Number in the city eight years old or more, but less than fourteen	7,717

Finances.

[For the financial year ending Dec. 1, 1893.]

Cost of instruction in day schools	$215,593 12
Cost of instruction in evening schools	5,018 50
Cost of care and repairs of schoolhouses (day schools)	41,054 11
Cost of care of schoolhouses (evening schools)	2,200 00
Cost of text-books and supplies	15,767 10
Incidental expenses	1,639 49
Expended on Parker schoolhouse (new)	12,967 35
Expended on Latin schoolhouse	1,500 00
Expended on Wellington schoolhouse	11,947 25
Expended on Putnam schoolhouse	670 00
Expended for sanitary arrangements	3,549 14
Expended for Wellington schoolhouse (furniture)	2,000 00
Expended for Manual Training school (furniture)	1,495 45
Expended for Parker schoolhouse (furniture)	797 22
Expended for English High schoolhouse (furniture)	496 50
Total expenditures for all school purposes	$316,695 23
Deducting receipts from the Hopkins Fund ($753.14) and for tuition of non-resident pupils ($677.50), actual cost of the schools to the city	$315,264 59
Assessed value of real and personal estate, May, 1893	76,293,989 00
Ratio of expenses for school purposes to the valuation of 1893	.0041

Statistics taken from the fifty-seventh annual report of the Secretary of the State Board of Education.

Number of cities and towns: cities, 30; towns, 322	352
Number of public schools	7,510
Number of pupils of all ages in the public schools during the year	391,745
Number of persons over fifteen years of age attending the public schools	35,395
Per cent of attendance based upon the average membership	90
Number of persons employed as teachers in the public schools during the year: men, 989; women, 10,244; total	11,233
Number of teachers who have graduated from normal schools	3,473
Average number of months the public schools have been kept for the entire year	8.13
Number of high schools	247
Number of teachers in high schools	961
Number of pupils in high schools	28,582
Amount expended upon the public schools, exclusive of the expense of school buildings	$7,388,605 29
Cost of new schoolhouses, permanent improvements, and ordinary repairs	2,275,302 20
Entire expenditure for public school purposes	$9,663,907 49

Special Institutions.

The following are the statistics of the attendance and expenses of the Massachusetts pupils in the several schools for the deaf, the blind, and the feeble-minded.

AMERICAN ASYLUM AT HARTFORD, CONN.

Number of Massachusetts beneficiaries, 1892–93	66
Paid for these pupils	$10,805 05

CLARK INSTITUTION, NORTHAMPTON.

Number of Massachusetts beneficiaries, 1892–93	99
Paid for these pupils	$17,219 38

HORACE MANN SCHOOL, BOSTON.

Number of Massachusetts beneficiaries, 1892–3	108
Paid for these pupils	$11,441 00

PERKINS INSTITUTION FOR THE BLIND.

Number of Massachusetts beneficiaries, 1892–3	114
Annual appropriation from the state	$30,000 00

SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

Number of Massachusetts beneficiaries, 1892–3	174
Annual appropriation from the state	$25,000 00

TABULAR VIEW.

JANUARY 1, 1894.

Prepared by the Secretary of the School Committee.

Names of Schools.	Teachers.	Salaries.	No. of Pupils Jan. 1, 1894.
Latin	William F. Bradbury	$3,000	311
	Theodore P. Adams	2,000	
	Charles W. Parmenter	1,800	
	Helen M. Albee	950	
	Constance Alexander	600	
	Charlotte C. Barrell	950	
	Caroline Drew	950	
	Mary C. Hardy	950	
	Margarette M. Leighton	950	
	Emma M. Sawyer	950	
	Jennie S. Spring	950	
	Annie S. Dodge*	200	
English High	Ray Greene Huling	3,000	656
	Edwin L. Sargent	2,000	
	Charles F. Warner	2,000	
	Joseph A. Coolidge	1,000	
	Clara A. Armes	950	
	Caroline Close	950	
	Bertha L. Cogswell	400	
	Grace L. Deering	1,050	
	Myra I. Ellis	1,000	
	Maud A. Lawson	800	
	Henrietta E. McIntire	700	
	Mary Moulton	950	
	Louisa P. Parker	1,000	
	Lillian C. Rogers	750	
	Caroline A. Sawyer	950	
	Emma A. Scudder	950	
	Martha R. Smith	950	
	Maria E. Spare	950	
	Delia M. Stickney	1,050	
	Anna M. Warren	700	
	Martha L. Babbitt*	500	
Allston	Benjamin W. Roberts	2,000	553
	Sara A. Bailey	700	
	Susan M. Adams	620	
	Mary Blair	620	
	Mary M. Brigham	620	
	S. Alice Fell	620	
	Susan L. Keniston	620	
	Evelyn B. Kenny	620	
	Ada M. Litchfield	520	
	S. Agnes Mulloney	620	
	Emily R. Pitkin	620	
	Elizabeth M. Ricker	620	

*Secretary and Librarian.

Tabular View — *Continued.*

Names of Schools.	Teachers.	Salaries.	No. of Pupils Jan. 1, 1894.
Allston	Ida G. Smith	$620	
	Caroline M. Williams	620	
Harvard	James S. Barrell	2,000	698
	Arthur A. Lincoln	1,200	
	Ada H. Wellington	700	
	Margaret B. Wellington	700	
	Addie L. Bartlett	620	
	Elizabeth L. Buckley	620	
	Sarah H. Conant	620	
	Mary F. Emerson	620	
	Frances Fabyan	620	
	Alice V. Flather	520	
	Estella J. French	620	
	Eliza S. Getchell	620	
	Mary W. Leymunion	620	
	Adeline M. Murphy	620	
	Louise C. Patterson	570	
	Annie M. Street	620	
	Emma F. West	520	
	Hortense O. Young	620	
Morse { Grammar	Mary A. Townsend	1,800	{ 395
Morse { Primary			{ 159
	Mary E. Towle	700	
	Elizabeth J. Baldwin	620	
	Mabel L. Chamberlain	570	
	Stella L. Cotton	470	
	Marie B. Daniel	520	
	Annie M. Dow	620	
	Leila F. Drake	570	
	Mary E. Leavitt	620	
	Alice E. May	520	
	Emily Richardson	620	
	Marcia E. Ridlon	620	
	Mary E. Sawyer	620	
	Lucy M. Soulée	620	
	Gertrude D. Sprague	520	
Peabody	Frederick S. Cutter	1,800	299
	Addie F. Cleary	700	
	Susan Allison	620	
	Anna F. Bellows	620	
	Mabel A. Clark	470	
	Charlotte A. Ewell	620	
	Florence E. Frost	620	
Putnam	Thomas W. Davis	2,000	673
	Charles C. Price	1,000	
	Eliza M. Hussey	700	
	Ella R. Avery	620	
	Annetta Bruce	620	
	Mary A. Carmichael	620	
	Lydia B. Collier	620	
	Anna L. P. Collins	570	
	Sarah M. Grieves	620	
	Annie B. Josselyn	620	
	Augusta G. Mirick	620	

Tabular View — *Continued.*

Names of Schools.	Teachers.	Salaries.	No. of Pupils Jan. 1, 1894.
Putnam	Eliza S. Paddack	$620	673
	Anna M. Poole	570	
	Henriette E. de Rochemont	520	
	Mary M. Sullivan	620	
	Annie A. Trelegan	570	
	Myra D. Webster	400	
Shepard	Edward O. Grover	2,000	606
	Nellie A. Hutchins	700	
	Mary C. Adams	570	
	Harriet V. Dever	620	
	Emma A. Faulkner	620	
	Emily F. Fessenden	620	
	Harriet Foster	620	
	Louise H. Griswold	620	
	Ella F. Horne	520	
	Ellen J. Hunt	620	
	A. Estelle Ingraham	620	
	Flora C. Ingraham	620	
	Melissa M. Lloyd	620	
	Evelyn J. Locke	620	
Thorndike	Ruel H. Fletcher	2,000	495
	Harriet A. Townsend	700	
	Grace W. Fletcher	620	
	Emma A. Hopkins	620	
	Abby A. K. Howard	620	
	Elizabeth G. Hutchison	620	
	Martha A. Martin	620	
	Mary E. Nason	620	
	S. Louise Regal	620	
	Alice C. Taggart	620	
	Abby S. Taylor	620	
	Laura A. Westcott	620	
	Lydia A. Whitcher	620	
Washington	John W. Freese	2,000	488
	M. Florence McGlashan	700	
	Eldora J. Clark	620	
	Lucy A. Downing	620	
	Mary L. Ells	620	
	Mary E. Kent	400	
	Ellen A. Kidder	570	
	Winifred L. Kinsley	620	
	Emily M. Marston	620	
	Emma Penney	400	
	Margaret J. Penney	620	
	Hattie Shepherd	620	
	Mary E. Stiles	620	
	Abby M. Webb	620	
Webster	John D. Billings	2,000	667
	Melzar H. Jackson	1,100	
	Alice C. Phinney	700	
	Martha N. Hanson	700	
	Ada A. Billings	620	
	Flora E. Billings	470	
	Ella E. Buttrick	620	
	Charlotte M. Chase	620	

Tabular View — *Continued.*

Names of Schools.	Teachers.	Salaries.	No. of Pupils Jan. 1, 1894.
Webster	Susan I. Downs	$620	
	Josephine Hills	620	
	Helen M. Joyce	620	
	Edith M. Keith	620	
	M. Josephine Lamprey	620	
	Anna S. Lamson	620	
	Minnie V. Reid	620	
	Harriette E. Shepard	570	
	Ellen F. Watson	620	
Corlett	Fannie P. Browning	630	67
	Mary L. Gamwell	620	
Agassiz { Grammar / Primary	Maria L. Baldwin	800	{ 112 / 198
	Mary G. Carpenter	620	
	Amy Greaves	470	
	Jennie Lyle	620	
	Minnie A. Noyes	620	
	Mary A. Parsons	520	
	Jennie L. Upham	400	
Boardman	Mary A. Lewis	660	365
	Florence H. Barrett	570	
	Christine R. Denyven	620	
	Alice Gregg	620	
	Nellie E. Hastings	620	
	Elizabeth J. Karcher	620	
	C. Florence Smith	620	
	Sarah E. Stewart	620	
Cushing	Isadore I. Foster	630	60
	Fannie G. Flanders	400	
Dana	Maria F. Williams	640	152
	Emily J. Allen	620	
	Abby A. Lewis	620	
	Georgia E. Martin	520	
Dunster	Susan E. Wyeth	645	159
	Mary E. Colby	620	
	Mary A. Doran	400	
	Isabel Foster	620	
Felton	Florence A. Rogers	640	161
	S. Emma Davis	520	
	Helen E. Hazard	400	
	Carrie H. Smith	620	
Gannett	Sarah J. A. Davis	640	173
	Annie M. Billings	520	
	Anna M. Jones	620	
	Mary A. Rady	620	
Gore	Frances E. Pendexter	680	550
	Anna E. Callahan	620	
	Addie H. Dale	570	
	Maude A. Deehan	520	
	Elizabeth B. Gahm	620	
	Katherine L. McElory	620	
	Mary C. McNally	620	
	Mary E. Mulloney	620	
	Anastasia Peters	470	

Tabular View. — *Continued.*

Name of Schools.	Teachers.	Salaries.	No. of Pupils Jan. 1, 1894.
Gore	Emma J. Ross	$620	
	Margaret Sullivan	400	
	Jane E. Whorisky	470	
Holmes	Marianne M. Webb	630	93
	Ellen M. Cyr	620	
Lassell	Ellen F. Ball	640	190
	Rose V. Collier	620	
	Cora A. Reycroft	620	
	Frances E. Whoriskey	620	
Lowell	Lucy E. Cyr	640	133
	Malvina E. Joslin	570	
	Agnes J. McElroy	520	
Otis	Ellen N. Leighton	660	344
	Frances Allen	620	
	Bridget T. Boyle	400	
	Martha H. Butler	620	
	Josephine M. Doherty	620	
	Luella M. Marsh	620	
	Ellen C. Walsh	620	
	Kate F. Wellington	620	
Parker	Emily C. Dallinger	635	87
	Mary M. Bucknam	620	
Quincy	Charlotte E. Jewell	630	90
	Lucy C. Wyeth	620	
Reed	Margaret Kidd	640	200
	Margaret T. Burke	620	
	Harriet N. Keyes	620	
	Julia A. Robinson	620	
Riverside	Elizabeth A. Tower	640	148
	Amanda M. Alger	620	
	Mary A. Burke	620	
Sargent	Mary A. Brown	640	169
	Christina D. Barbey	620	
	Fanny C. Hartwell	620	
	Ella M. Leaver	620	
Stearns	Fannie E. Higgins	640	191
	Maria J. Bacon	620	
	Ellen A. Cheney	620	
	Eva A. Taylor	620	
Tarbell	Emma J. Young	640	169
	Florence J. Alley	470	
	Ellen F. McCarthy	620	
	Carrie P. Pierce	570	
Willard	Amelia Wright	680	455
	Sally N. Chamberlain	620	
	M. Elizabeth Evans	620	
	Ella F. Gulliver	620	
	Julia S. Gushee	620	
	Mary E. G. Harrington	620	
	Louise W. Harris	620	
	Katherine M. Lowell	620	
	Emma C. Otis	620	
	Eliza D. Watson	620	
	Grace R. Woodward	620	
	Laura Wright	620	

Tabular View. — *Continued.*

Names of Schools.		Teachers.	Salaries.	No. of Pupils Jan. 1, 1894.
Wyman		Fannie E. M. Dennis	$650	302
		Addie M. Bettinson	620	
		M Carrie Diekman	620	
		Georgianna B. Duteher	620	
		Geneveive S. Flint	470	
		Mary M. Gilman	620	
Wellington	Grammar	Herbert H. Bates	2,200	448
	Primary			304
		Susan G. Lombard	800	
		Eusebia A. Minard	800	
		Mary I. Vinton	800	
		Carrie H. Stevens	700	
		Emma M. Taylor	620	
		Elizabeth M. Nash	400	
		Training Class	4,400	
Kindergartens.	Boardman	Mabel S. Eddy	620	41
		Margaret G. Mulloney	520	
	Dunster	Clara A. Hall	520	44
		Mabel L. Sanderson	400	
	Gannett	Gertrude M. Gove	520	25
	Gore	Selma E. Berthold	620	56
		Sarah S. Wells	400	
	Lowell	Melinda Gates	620	40
		Frances L. Plimpton	400	59
	Moore Street	Harriette E. Ryan	620	
		Nellie A. Watson	400	
	Riverside	Helen I. Hutchison	620	61
		Mabel F. Adams	400	
Teacher of Botany		Sarah E. Brassill	550	
Teacher of Gymnastics		Clara E. Sheppard	500	
Teachers of Sewing		Agnes Gordon	600	
		Alice H. Nay	600	
		Sarah J. Stanton	200	
Director of Music		Frederick E. Chapman	1800	
Director of Drawing		James M. Stone	1700	
Assistant in Drawing		Lucia N. Jennison	800	
Truant Officers		John Carmichael	700	
		Moses M. Child	900	
		John Collier	900	
		Francis M. Mason	900	

Superintendent — Francis Cogswell	$3,000
Special Primary Teacher — Lelia A. Mirick	1,000
Agent — Sanford B. Hubbard	1,800
Clerk — Althea B. Frost	600

The Wellington School is a training school, composed of grammar and primary pupils taught by young ladies, graduates of normal schools and candidates for the position of teacher, under the direction and with the assistance of the master of the school and his assistants.

Temporary assistants and members of the training class are counted as seven teachers, the sum of their salaries being about equal to the amount paid to that number of regular teachers.

Summary.

Number of pupils in Latin School	311
Number of pupils in English High School	656
Number of pupils in Grammar Schools	5,501
Number of pupils in Primary Schools	4,852
Number of pupils in Kindergartens	326
Total	11,646
Number of pupils belonging to the Public Schools, Jan. 1, 1893	11,511
Increase	135
Average annual increase of pupils, from 1860 to 1880 (inclusive)	219
Increase of pupils, 1882	448
Increase of pupils, 1883	280
Increase of pupils, 1884	165
Increase of pupils, 1885	589
Increase of pupils, 1886	267
Increase of pupils, 1887	371
Increase of pupils, 1888	173
Increase of pupils, 1889	249
Increase of pupils, 1890	368
Increase of pupils, 1891	222
Increase of pupils, 1892	210
Increase of pupils, 1893	135
Number of schools	41
Number of schoolrooms	267
Number of teachers	297

Cost of Instruction.

Latin School	$13,425 66	For each pupil	$43 17
English High School	22,095 00	" " "	33 68
Training School	9,360 00	" " "	12 45
Grammar Schools	89,362 50	" " "	17 68
Primary Schools	60,411 45	" " "	13 29
Kindergartens	6,475 10	" " "	19 86
Teachers of Sewing	1,356 75		
Director of Music	1,730 00		
Director of Drawing	1,700 00		
Teacher of Gymnastics	75 00		
Superintendent	3,000 00		
Agent	1,730 00		
Clerk	530 00		
Special Teacher in Primary Schools	1,000 00		
Truant Officers	3,341 66		
	$215,593 12	For each pupil	18 51
Cost of instruction in Evening High School			$1,363 00
Cost of instruction in Evening Elementary Schools			2,124 50
Cost of instruction in Evening Drawing Schools			*1,531 00
			$5,018 50

* The director of drawing is principal of these schools. No part of his salary is included in this amount.

Text Books and Supplies.

At the meeting of the Board in December, the committee on supplies submitted a detailed report of the expenditures of that committee for the year.

This report was accepted, and it was voted that it be incorporated in the annual report of the school committee. The report is as follows : —

"In accordance with section twenty-nine of the rules of the school board, the Committee on Supplies submit the following report of their doings for the school year ending July 1, 1893, being the ninth annual report of this committee to the Board."

Stock on hand July 1, 1892		$2,355 30
Purchases and expenditures to July 1, 1893		13,357 25
Total		$15,712 55
Delivered to the overseers of the poor	$12 21	
Sold for cash to pupils	105 30	
Delivered to schools and officers	12,934 98	
		13,052 49
Stock on hand July 1, 1893		$2,660 06

The purchases and expenditures have been:

For text-books	$5,145 61
Desk and reference books	428 76
Drawing and writing books	1,030 30
Apparatus and furnishings	1,224 40
Miscellaneous supplies	4,447 82
Printing ($563.94); expressage ($263.70)	827 64
Diplomas ($143.24); repairing books ($95.48)	238 72
Tuning pianos	14 00
	$13,357 25

Deducting from the value of books and supplies delivered to schools and officers, as above		$12,934 98
The sales in the schools	$121 26	
The damages collected	35 29	
And profit on sales from the office	10 21	
		166 76

We have, net cost of all schools and officers $12,768 22

or an average cost per pupil of $1.109, against $1.149, for the year 1892; $1.248 for the year 1891; $1.334, for the year 1890; $.960, for the year 1889; $1.068, for the year 1888; $1.051, for the year 1887; $1.17, for the year 1886; and $1.88, for the year 1885. The average cost per pupil per annum for nine years has been $1.219.

The cost of each grade of schools for text-books and supplies is as follows:—

	Net Expense.	Average per Pupil.				
		1893.	1892.	1891.	1890.	1889.
High Schools	$3,472 91	$3.969	$3.826	$3.855	$5.362	$4.054
Grammar Schools	5,075 41	1.106	.969	1.231	1,618	1.071
Mixed Schools	1,469 13	1.005	2,398	1.203	.985	.746
Primary Schools	966 21	.226	.140	.503	.286	.276
Kindergartens	156 12	.497	.316	.648	.....	.....
Evening Schools	493 64	.....	.....	.....	.....	.....
Special Teachers	245 07	.....	.....	.....	.....	.....
Miscellaneous expenses (not chargeable to any grade).	899 94	.....	.....	.....	.....	.....
	$12,778 43	.....	.....	.....	.....	.....
Less profit on sales	10 21					
	$12,768 22	$1.109	$1.149	$1.248	$1.334	$.960

The changes that may be noticed in the foregoing tables may be partly accounted for as follows:

The English high school was furnished with a large amount of chemical and physical apparatus last year which is an unusual expense; also the Morse school was completely fitted out last year, hence the great decrease in the cost of the mixed schools this year. The amount expended for supplies in the primary schools is larger because of the more extended use of paper and pencils for writing. An apparent increase in the cost per pupil in the kindergartens is due to the establishment of a new kindergarten in the Gannett schoolhouse; deducting this, the cost per pupil is less than last year. The increase in the item for printing, $295.89, is caused by printing the reports of two special committees and the courses of study in both music and drawing. The amount of damages collected, $35.29, less by $12.83 than last year, shows that the pupils are becoming more careful in using the property of the city, since the damages are assessed with the same strictness every year.

The total shows a decrease in the cost per pupil, charging the

entire net expense to the pupils of the day schools and kindergartens only. The average cost per pupil for the nine years, $1.21,9, would seem to be as low as can be expected, since additional text-books, especially in reading, are being introduced in accordance with the most progressive ideas, and this, of course, tends to keep up the average.

The estimate for the current financial year, on this basis, there being, December 1, 11,646 pupils in the day schools and kindergartens, would be $14,200. During the financial year just ended $15,767.10 was expended by this committee; with the closest economy they think that $14,000 will be sufficient for the regular supply of text-books and other supplies for the schools and recommend the appropriation of that sum.

Remarks on the Statistics.

The increase over the last school year in the number of pupils registered is 262; in the average number belonging, 184; in the average daily attendance, 115. In the per cent of attendance there has been a decrease of five-tenths of one per cent. The number belonging to the schools in December, 1892, was 11,511; in December, 1893, 11,646; an increase of 135. The entire cost of the day schools, excluding the expenditures for new schoolhouses and new furniture, exceeds that of last year by $7,402.80, and the cost per pupil by 26 cents. In the entire cost of instruction the increase is $8,448.90; an increase in the cost per pupil of 45 cents. While Cambridge expends a large amount for her schools, there are *two hundred and twenty-two* towns and cities in the state which make a larger expenditure in proportion to their wealth. In a list of the thirty cities, arranged numerically according to the percentage of their taxable property appropriated to the support of public schools for the year 1892–1893, Cambridge is the *sixteenth*, and compared with the fifty-four towns and cities of our county, Cambridge is the *thirty-second*. In a list of the towns and cities of the state, arranged numerically according to the sum appropriated for each child between five and fifteen years of age, Cambridge is the *thirty-fourth*.

These statistics relating to the schools of the state are taken from the fiifty-seventh annual report of the Secretary of the Board of Education.

THE YEAR'S WORK.

The report for 1892 contained a somewhat extended account of the classification and growth of the schools during the previous fifty years. It has been thought advisable to give in this report only a brief statement of the work of the schools during the past year, and of the changes that have taken place. The following are the more important facts, taken mainly from the reports of the several committees made to the school board in December.

Latin School. There has been a gain in the attendance at this school during the past year of nearly twenty per cent. The present number of pupils is three hundred eleven, and the number of teachers is eleven. In September, on the recommendation of the head master, a teacher was appointed to give instruction in English composition, that this subject might have a more important place in the work of the school. Additions to the library have been made of books of reference and other books in value to the amount of nearly six hundred dollars, and about three hundred dollars has been expended for apparatus for the physical laboratory.

English High School. This school was organized as a separate school in 1886. Mr. Frank A. Hill was elected head master. In June, 1893, Mr. Hill resigned to accept a similar position in the mechanic arts high school, Boston. During Mr. Hill's connection with the school a fine building was erected for its accommodation, and the number of pupils was nearly doubled. In accepting his resignation the school committee expressed their high appreciation of his services, and also that of the community, by the adoption of the following resolution: "Resolved, That in accepting the resignation of Mr. Frank A. Hill, head master of the English high school, the school committee of Cambridge unanimously desire to put upon record and to express to Mr. Hill their high appreciation of his work in planning the fitting up of the school building, in the organization, administration, and development of the school, and in the moral and intellectual training of his pupils. In every department he has won the high esteem of this committee and of the

citizens of Cambridge, and he will have, in his proposed work in Boston, their hearty regard and good will."

In seeking a successor to Mr. Hill, the committee selected Mr. Ray Greene Huling, the head master of the high school in New Bedford, and the present condition of the school shows that the choice was wisely made. Leave of absence for the school year 1893–94 has been granted to the head assistant, Miss Harriet E. Bird, that she may pursue her studies abroad. During her absence Miss Grace L. Deering, a teacher in the school, occupies her place, and Miss Lillian C. Rogers, a temporary teacher, is to do the work of Miss Deering. A sum of three hundred dollars has been expended for reference books and other books for the library.

Manual Training School. The lengthening of the course of study from three years to four is the principal change in this school. On account of this change the number of recitations has been increased, and now Mr. Warner gives his entire time to this department of the English high school. The new building erected by Mr. Rindge for the accommodation of the academic work of the manual training course was occupied on the first of April. Since then only the pupils in the senior class have been obliged to go to the high school building for any part of their instruction. The cost of furniture for the new building was nearly fifteen hundred dollars.

Wellington (Training) School. As the Wellington school serves a double purpose, being at once a regular ward school and a training school for teachers, it seems well to speak of its present condition in both these respects.

As a ward school it has been increased this year by the addition of the ninth grade, so that it now comprises all the primary and grammar grades. This was made possible by the additions to the building which were completed last spring. These consist of six large, well-lighted, well-warmed, and well-ventilated rooms, capable of seating three hundred pupils; a recitation room furnished with tables and apparatus for the ninth grade to do the work in physics; and a good assembly hall. This hall is furnished with one hundred settees capable of seating about four hundred fifty people, with a good piano and a few pictures. Besides these rooms for the use of the pupils, there

are rooms for the master and for the teachers, convenient coat rooms, closets, etc. The teaching in the primary and in the three lower grammar grades is done entirely by the members of the training class, advised and assisted by the master and his assistants. The seventh grade is taught by a graduate of the training class whose work while a member of this class was in the three upper grades; and the eighth and ninth grades have permanent teachers of large experience.

As a training school this school gives to young and inexperienced teachers an opportunity to try their powers in the real work of teaching and of the discipline of the schoolroom, under the friendly eye of experienced teachers whose whole care it is to help them by advice and example; and it acts also as a safeguard to the city by testing these young applicants for positions in the city schools, and dropping out those who show themselves unequal to the work required. No one is admitted who has not had a high school education followed by a normal school training or a college training, or who has not had advantages and opportunities which may be considered equal to these. Fourteen graduates of this school have been appointed to positions in the Cambridge schools since January, 1893. At the present time there are seventeen in the training class. This year the number of master's assistants has been increased by one, Miss Mary I. Vinton, formerly master's assistant at the Allston school; and leave of absence has been granted on account of ill-health to Miss Sarah J. Gunnison, the assistant in charge of the primary grades, and her place has been filled by Miss Eusebia A. Minard.

The management of this school presents a difficult problem. The pupils must be brought up to the required standard of the primary and grammar schools, the members of the training class must have a fair opportunity to show what they can do, and they must be constantly overlooked, advised, and encouraged; and at the same time, by the limitations of the committee, the expense per pupil of this two-fold school must not exceed the average expense of pupils in the other primary and grammar schools of the city. Two thousand dollars has been expended during the year in furnishing the new rooms, and in putting the old furniture in good condition. A piano has also been bought at a cost of three hundred dollars.

Grammar Schools. The course of study for these schools has been revised and the work arranged in two courses, one to be accomplished in six years and the other in four years. That the graded system of schools may not interfere with the progress of any pupil, a teacher has been appointed in each of the large grammar schools to give personal instruction to such pupils as seem able to do the work in less than six years, and to those who without this instruction would require more than six years.

In June, 1892, it was ordered that, beginning with September, 1892, there should be added to the course in mathematical study geometrical forms and relations, including mensuration, leading up to and including the demonstration of simple theorems in plane geometry in the last year; and that, beginning with the school year 1893, instruction be given in elementary physics, experiments and laboratory work, with some exact weighing and measuring. Geometry, therefore, has been taught in the schools for more than a year, and physics since last September. Each school has been supplied with two laboratory tables, each ten feet long, which accommodate sixteen pupils at a time, and with sixteen sets of apparatus. The tables cost twenty-three dollars fifty cents apiece, and the cost of the apparatus was nearly five dollars a set.

As the teaching of physics was new work in the grammar schools, it seemed desirable that those who were to give the instruction should have an opportunity to see the work in the several schools. Accordingly it was arranged that once in two weeks the teachers should spend the last hour of an afternoon session at one of the schools, and that the teacher of physics in that school should give a lesson, after which there should be a free interchange of opinions in regard to the best method of teaching the subject. The teachers have found these meetings interesting and profitable.

Primary Schools. At a meeting of the school committee on February 18, 1892, it was ordered that a special committee of five members, of whom three shall be members of the standing committee on text-books, be appointed to consider the courses of study in the grammar and primary schools, with a view to shortening and enriching the program. This committee gave special attention to the grammar schools, and their report recommended

important changes in the course of study for them. The report was accepted and its recommendations were adopted at a meeting of the school board on June 2, and it was printed in the annual report for 1892. At that time it was further ordered that a committee of five be appointed to examine and report upon the course of study in the primary schools. As the report of this committee explains the changes that have been made in the work of the primary schools during the year, it is here given in full.

REPORT ON PRIMARY SCHOOL INSTRUCTION.

The first subject to which your committee wish to call your attention is the

SUPERVISION OF THE PRIMARY SCHOOLS.

The special committee of 1892 pointed out the need of careful supervision for these schools, and on their recommendation a special teacher was appointed to do this work. It is the pleasant duty of the present committee to report that the work has been done in the most admirable manner, and that the results have proved the wisdom, both of this method of general supervision and of the choice of the person who now fills this office. But this is not enough. As the schools are now constituted, the principals are absolutely confined to their own schoolrooms throughout the entire school session. They are responsible to a certain degree for the character and standing of their schools; but they have no opportunity to influence any class but their own, or to weigh well the influence of any other teacher, and, what is of still more importance, they cannot make sure that the different grades all work together in the best way for the moral and intellectual advancement of the children. The primary schools are not organic wholes: they are mere aggregations of grades under one roof. To remedy this defect, which is the result of the circumstances and not in any way the fault of the principals themselves, and which cannot be cured, much as it is helped, by supervision from the outside, this committee earnestly recommend that a special teacher be appointed to each of the primary schools which consist of seven or more than seven rooms; and that, for the present, the committee of

the training school be asked to provide a substitute teacher to go at intervals to the assistance of each of the principals of the smaller primary schools, and so set her free to supervise her own school. They believe that the good effects of this measure would soon be evident in the increased rate of promotion from room to room, and from these rooms into the grammar schools.

SPECIAL TEACHERS.

There is very great need in the primary schools of this class of teachers, who, besides taking occasional charge of the principal's room, would be free to perform the same duties that are performed by such special teachers in the grammar schools. Many of the rooms are so over-crowded that it is impossible for the regular teacher to do justice to both the quick and the slow minds. And in the spring a new class is admitted into the lowest grade, which gives additional work and perplexity to the teacher there. With judicious help some of the children who enter then, with already a little knowledge of reading, writing, and arithmetic, could catch up with the regular class and go on with it in September, and so complete the course in two years and a half, instead of taking three years for it, or even three and a half, as these April children often do. Even half a year saved is a great gain, both to the children who have only a few years of school life before them and to those who are beginning their education with the expectation of having a college course. And when we consider that many of these children are six or seven years old when they enter, the need of this effort to help them along seems imperative. The regular teacher cannot take the time for this work, especially if she has fifty children to look out for, even if she has the strength. And these special teachers could be of the greatest service to those children who for one reason or another are constantly dropping behind. Dawdling is cumulative, and when children begin to be listless and indifferent they drop down into almost hopeless apathy with surprising rapidity. And they are easily discouraged. If they are slow, or feeble, or irregular in their attendance, they are dazed by the amount of their comrades' knowledge, and they do not know how to try to catch up with them. Young children

need a great deal more care and attention than older ones, but under our present system they do not have as much. When we compare our crowded, meagrely appointed primary schools with our luxurious high schools, we cannot help suspecting that one reason why popular education, here as elsewhere, has failed to fulfil the hopes of its best friends, is that we are gilding the dome of a structure that is founded on loosely driven piles.

The fact that the children who enter the primary schools are generally nearer six years old than five (the average age of entrance in September, 1892, was five years and eleven months), while nearly one-fourth of them take four years instead of three to go through, partly accounts for the fact that on the average they are nearly ten years old when they leave the primary schools in June, and quite ten when they enter the grammar schools in September. This is two years older than the age counted upon in the general plan, for it is certainly expected that the average age of entrance into the grammar schools will be eight, and it ought not to be much greater. By and by, when there are kindergartens enough to accommodate all the little children, the age of entrance into the primary schools can be somewhat regulated; for it is understood that the children are not expected to remain in the kindergartens after they are five years old, and they must pass on. But at present the number of children that we can thus control is very small compared with the whole number; and as the law does not require any one to send a child to school until he is eight, we are powerless to help this matter. But we can perhaps diminish the number of the children who remain four years.

In considering this question of age we must remember that the average is often brought up by the presence of children twelve or even fifteen years old, and here we are brought face to face with an evil too serious to go unchecked. In some parts of the city these children come to the lower schools because they cannot speak or understand English well enough to go where they naturally belong; in other cases they have been kept back by serious illness; and sometimes they are feeble-minded. All these children are entirely out of place. Whatever the cause that has kept them so ignorant that they cannot enter the grammar schools, they do not belong in the primary

schools. They are too large for the chairs and desks; they are too mature for wholesome companionship with the little children; and if they are feeble-minded they are too heavy a burden to be imposed upon the schools, which ought to be full of eager child life. If there were room, your committee would recommend that these older children make a sub-grammar grade in the grammar school buildings; but as this is manifestly impossible at present, they can only hope that an extra teacher may be able to devise some method by which these children can be helped along faster, and enabled to keep at least within sight of boys and girls of their own age.

TIME OF ADMISSION IN SPRING.

At present children are admitted in April, which in our New England climate is perhaps the real beginning of spring. But when they come with absolutely no book knowledge, there is hardly time enough in the three months that intervene between their entrance and the long vacation to give them a good start; and so it happens that many of them have to begin over again in September, and this time seems to be wasted. Your committee would therefore recommend that the time of admission be changed to the first of March.

THE COURSE OF STUDY.

The course of study for the primary schools, as it now stands, includes Reading and Spelling, Writing, Number, Language and Literature, Music, Drawing, Physiology and Hygiene, and Moral Instruction.

NATURAL SCIENCE. BOTANY.

There is no formal provision made for natural science; but the teachers are strongly recommended to give some oral instruction every day, and the following subjects are mentioned as "among those most likely to interest and profit the pupil: Color, Form, Place, Size, Qualities of Objects, the Human Body, Plants, Animals, and Familiar Things." In many parts of the city this work has been done well and with admirable

results. Boxes of growing plants in various stages of development, trays of minerals amounting in some cases almost to the dignity of a "collection," and "curiosities" proudly treasured as the beginning of a museum, plainly testify that many of the teachers are in sympathy with the world about them and ready to help their pupils to understand its mysteries, and that the children respond eagerly to any instruction in matters that they really want to know about. It seems to your committee that the time has come to introduce the subject of natural science definitely into the curriculum of the lower schools, at least, and to provide, as far as possible, that it be well taught. Some one branch of this wide subject must be chosen to begin with, but it is not of so much consequence what particular branch is taught as how it is taught. The knowledge acquired, useful as it may be, is of small importance compared with the mental training. To be really valuable the method employed must be strictly scientific. The child must be led to observe for himself, to draw logical conclusions from what he observes, and to express his clear and definite thought correctly and graphically. For several reasons which seem to them to carry weight, your committee recommend that botany be the branch of natural science to be introduced into all three grades of the primary schools next year, and that arrangements be made to have the necessary instruction and advice given to the teachers by some competent person. Botany is perhaps, on the whole, the department of natural science that the teachers are already most familiar with, and it is sure to be interesting to the children. It deals with things that they are naturally fond of, that they see about them every day, and that they can themselves own and take care of, however poor they may be. And if a genuine and intelligent interest in plant life can be formed early in these children, and fostered as they become capable of understanding more and more about it, it will be a constant source of wholesome pleasure to them. There is in the city one of the best botanic gardens in the country, and it is pitiable to see how little it is appreciated by the mass of the people who might enjoy it. Perhaps we can train the rising generation to use more freely the opportunities that lie within their reach.

It will not be a difficult matter to find some one to give the

special instruction to the teachers on terms that the city can well afford; and your committee feel sure that the teachers will respond to this movement with alacrity. As we have seen, many of them have already done what they could towards introducing the teaching of science; and there is every reason to believe that they will, as a body, heartily welcome your action, should you decide to adopt this recommendation.

PHYSICAL EXERCISES.

The matter of physical exercise has also been left almost entirely to the teachers, the instructions of the committee being, "Have some simple, pleasing exercises not less than twice each session." And here again some of the teachers have led the way. Here and there throughout the city those who have had special training in the Ling system of Swedish school gymnastics have used it with their classes; and others, stimulated by their example or moved by inward conviction, have formed themselves into classes and hired some one to train them. It is well that the school board should now take some official action; and, after a careful investigation of its merits, your committee recommend that the Ling system, as modified and adapted for the primary schools of Boston by Mr. Nissen, be introduced into the primary schools of Cambridge, and that arrangements be made to give the teachers such instruction as may be necessary to enable them to carry on this work successfully. The committee limit their recommendation of systematic gymnastics to the primary schools, simply because they were appointed to consider their needs only. They also recommend that the committee on the training school be requested to furnish instruction to the members of the training class, so that they may go out already prepared for this work.

In urging this measure the committee have been much influenced by the noticeably good effect which these gymnastics have on the order and discipline of the schools where they are well taught. Whether it is due to the fact that they equalize the circulation of the blood, as it is claimed they do, and so put the child into a wholesome state of body and mind, or whether it is due to the habit of prompt and implicit obedience to the

word of command which they establish, your committee are unable to say. Probably it is due in some measure to both these causes, but the fact seems to be beyond question.

NUMBER. WRITING.

In considering the subjects already well established in the course, this committee find only one or two suggestions to make about either number or writing, which seem to them, on the whole, well taught. In regard to number they would recommend that very simple examples in subtraction and division, as well as in addition and multiplication, be performed in the third grade, that the children may be early and well grounded in all the fundamental operations of arithmetic. In regard to writing they would suggest that, wherever the relative position of the chairs and desks will permit, the children be required to do all their writing squarely facing their desks.

It seems well to this committee that paper should be used more and more in place of slates. It is now so cheap that the matter of expense need hardly be considered, it is easier for the children to use neatly and quietly, and it is thought to be better for the eyes. They would here recommend that very great caution be used in requiring the children to copy numbers from the board. It is a difficult matter to keep the place in copying long lines of figures, the light is not always favorable, and the strain on the eyes and on the nervous system may be very great. They fear that it sometimes happens that by the time the child has got together the materials for his intellectual work he is not in a condition to do it to the best advantage.

READING AND SPELLING.

The fundamental subjects of reading and spelling present grave difficulties, which the committee regret to say the methods now in use do not seem to have overcome. Too many of the pupils, even in the grammar grades, read uncertainly as if they were still groping their way, and show an extraordinary timidity in attempting to pronounce even common words with whose printed or written form they are not perfectly familiar.

This is, of course, due to the want of sufficient practice, and it is difficult to see how children who come from illiterate families, where books are unknown, can ever get practice enough to read fluently, especially now that the city owns all the text-books and these must be left behind at the schoolroom door. But perhaps the matter can be somewhat helped by a change of method; and your committee therefore recommend that the sentence, the word, and the phonic methods all be used, hoping thus to get the good points of all three. It is through complete sentences that the child most quickly and most thoroughly gets the idea that printed or written matter stands for thought; but when he has mastered that idea, which he ought to do very early in the course, he must learn to know the words as separate individuals. This is an almost hopeless task unless he notices the letters and the constantly recurring combinations of letters, and is made perfectly familiar with their phonic value. The letters and the sounds in the language are limited in number, the words are practically countless, and the sentences are really so. It is useless to teach English as one would teach Chinese. The child must have a careful, persistent drill in the elements, in both their form and their sound; and after he has mastered the first difficulties he must read. The only way to learn to read is by reading. And it would be well, as soon as possible, to have two entirely distinct exercises: one for the most careful training in the mechanism and art of reading, in the clear, distinct articulation, the exact pronunciation, the rigid adherence to the texts that are necessary for good reading; the other for pleasure, pleasure both for the child himself and for the other children. Nothing can give an intelligent child a greater stimulus to read well than the need of giving the ideas, as fast as he can pick them up from the book, to a dependent audience. This exercise should be as free as possible from interruption by the teacher, who should give help when it is absolutely needed, but without any attempt to "draw out" the child or the class, and without making any point of correction or allowing the other children to correct; and it should be free from any criticism afterwards. In fact, it should be the result of such training as the child has had put to its legitimate use, reading for pleasure; and the more the interest centres in the matter read and the less

in the reader, the more simple and natural the reading will become. Of course a wise teacher will note the faults and try to correct them afterwards, in the next day's or the next week's drill lesson; and if she is thoughtful and observant and able to watch the children without too many preconceived ideas, she may get a good deal of light on the kind of drill they most need. She will do all this without making the connection between the two exercises so obvious as to destroy the sense of freedom in the pleasure lesson. The books to be read in this lesson must be carefully chosen. They must be easy enough to make it possible for the children to read them quickly, interesting enough to keep the attention of the class, and, as soon as possible, valuable enough to be worthy of becoming a permament possession of the children's minds.

As a help in the matter of spelling, one of the teachers, who has had many years' experience in primary school work, has, at the request of this committee, made a list of some fifteen hundred words that should be mastered before the child leaves the primary school. The words are divided into classes: those that can be advantageously used for drill in the sounds of the vowels and the combinations of vowels, and of the consonants; those that the child is sure to need in making sentences and in writing from dictation; and a few others, such as proper names, words that experience has shown it is hard for the children to remember, etc.

In teaching this or indeed any list of words, it would be well to make frequent use of the printed letters that come in little boxes prepared for schools. The children would thus, by constant practice in picking out the letters, become perfectly familiar with their printed form, and moreover have a pleasant change of occupation. The art of writing is so new to them that it must easily become fatiguing; and games of letters thoughtfully arranged might be of very great help in several ways.

With all the light we can get, however, it is still difficult to say just how spelling can be most easily and successfully taught; but the tale of a little boy who wrote 'gone' correctly fifty times, and then, when he had an important communication to make to his mother, turned over his slate and wrote

carefully on the other side, " I have gorn over to Johnny's," shows that unless the connection is made between the words in the book and the words in real life the most elaborate training counts for nothing.

LANGUAGE AND LITERATURE.

And so it is with language. The fact is strikingly apparent that, in spite of years of schooling, boys and girls pour out of our schoolhouses every day with such expressions as "It wasn't me, —Tom done it," or "I guess likely I shall go," on their lips. Your committee wish to recommend that constant practice in making sentences, and constant exercise in writing from dictation the best English prose and in committing to memory the best English poetry, be given in our primary schools ; but they wish yet more strongly to urge that correct English be insisted upon at all times and in all the grades of our schools, and that not only no composition but no exercise whatever be accounted good in any grade unless the English is correct. And your committee believe that, if regular teaching in natural science is given, the facts thus acquired will be the very best material for the training in language, and that, because the child has something of his own to say, he will take a real interest in learning to say it.

Literature is not too large a term to use even in connection with the primary course. The stories of Cinderella and Little Red Riding Hood and of those delightful Three Bears, of Robinson Crusoe and his man Friday, of Dick Whittington and his Cat, are literature, for they have fed the imagination of generation after generation of English-speaking children and they are familiarly quoted by all sorts and conditions of men. Books of this kind can easily be read and re-read, if the children ask to re-read them,—as they naturally do if they like a story, and as it is wholesome and right that they should do,—in the time set apart for reading for pleasure.

Perhaps after years of such daily reading the taste for honest literature may take root firmly enough to grow and flourish in spite of the corrupting influence of the cheap sensational trash that is flooding the world to-day. It is a good deal to hope, but it is the real end that the teacher ought to have

in view, and she must keep it in view, even though it seem a long way off. There has never been a time when it was so easy to get good literature in a cheap form for schools as it is now; but it will always be hard to get anything of real literary value that the youngest children can read for themselves, and, until they have acquired some little facility, the teacher must do as least part of the reading for pleasure herself. Judiciously done, and not overdone, this would be a very valuable exercise, full of stimulus and cultivation for the children and vividly enjoyed by them, for every one knows that they can listen with thorough appreciation to books that are much beyond their power to grasp for themselves.

MUSIC AND DRAWING.

Music and drawing are provided for by the appointment of special supervisors to take entire charge of these subjects, but it would not be wise to make of them merely matters of technical training. The children sing little songs for pleasure aside from their regular lesson; sometimes, perhaps, under the direction of a wise teacher, they sing to clear the over-charged nervous atmosphere of the room; and they sing national airs to stir in their childish hearts that strong and subtle emotion, love of country. Drawing should also made to serve its use in the general training. It is certainly not wise that a child should wait until he can draw well before using his pencil to illustrate his thought. The making of a very poor thing (which, perhaps, one would call a 'scrawl' if it were not so carefully done) is sometimes a most valuable help to a child in his effort to think out what he means, and wise teachers will freely use this help. If lessons are given in botany, the children can show the shape of the seed, the form of the plant at the different stages of its growth, or the parts of the flower, much more clearly by drawing than by language; and in most subjects one is a valuable supplement to the other. This use of drawing as a means of illustration, if wisely managed, ought to stimulate a child's interest in his technical training, for he can be made to see how much he needs it. Of course this should be done by gentle and slow degrees, so that he may not grow too much dis-

couraged and become shy about expressing himself with his pencil.

PHYSIOLOGY AND HYGIENE. MORAL INSTRUCTION.

These are required by law. The statutes are as follows:

"Physiology and Hygiene, which, in both divisions of the subject, shall include special instruction as to the effects of alcoholic drinks, stimulants, and narcotics on the human system, shall be taught as a regular branch of study to all pupils in all schools supported wholly or in part by public money."

"It shall be the duty of all instructors of youth to exert their best endeavors to impress on the minds of children and youth committed to their care and instruction, the principles of piety and justice, and a sacred regard to truth; love of their country, humanity, and universal benevolence; sobriety, industry, and frugality; chastity, moderation, and temperance; and those other virtues which are the ornament of human society, and the basis upon which a republican constitution is founded; and it shall be the duty of such instructors to endeavor to lead their pupils, as their ages and capacities will admit, into a clear understanding of the tendency of the above-mentioned virtues, to preserve and perfect a republican constitution, and secure the blessings of liberty, as well as to promote their future happiness, and also to point out to them the evil tendency of the opposite vices."

The law is certainly full and explicit, and leaves no doubt in the mind that the Commonwealth expects its public schools to endeavor to build up that basis of character on which alone republican institutions can safely rest. And this can be done most easily and effectively while the minds and hearts of the children are fresh and tender and most easily impressed. It is one of the most serious duties of the primary schools.

The instruction in physiology and hygiene in these lower schools must of necessity be confined chiefly to the oral teaching of the simple laws of health, but these are of the greatest consequence. Some of them can be taught practically. Cleanliness, for example, that virtue that ranks next to godliness, can be insisted upon to some extent. In dealing with all these matters, perhaps especially with the effects of alcohol, the teachers should be careful to found their instruction on scientific truth, or the children will not believe them or be guided by them when they grow older and temptations multiply.

While your committee do not wish to recommend that a special time be set apart for moral instruction, lest it grow formal and perfunctory and so defeat its end, they wish to take this opportunity to emphasize its importance. Cheerful, intelligent obedience to the law of the school may easily grow into cheerful, intelligent obedience to the law of the land; and for many of our children the training of the school is the only training they will ever have in the love of truth and justice, of courtesy and kindness, or even in the love of country. The need of instilling the elements of patriotism into the little children of our public schools grows greater every year; for they come more and more from foreign families, and have no American traditions behind them and no love of the soil born in their veins. This can be done in many indirect as well as in many direct ways. It had been sucessfully taught in that room where, after the whole class had been struck dumb for the moment before the difficulty of defining 'freedom,' a little girl suddenly sprang to her feet and exclaimed in a tone of absolute conviction, "It's Hail Columbia!" And it seems hardly possible that many out of the mass of children who stay five or six years in our public schools could rise and stand every time they sing "America," if that were the custom, and then go out into the world without some association of respect, at least, if not of affection, connected with it. It is often in these subtle and silent ways that tendencies are formed and characters made. This whole matter must, however, be left to the teachers. Committees cannot reach it; they can only bear witness to its importance.

PROGRAMS FOR RECITATIONS AND FOR DESK WORK.

Whatever the course of study, the teachers must certainly have very definitely in mind what they want to accomplish each year, and about how much time it is necessary to spend on each subject to bring the children up to the desired point. In the course of study of the Boston schools, the number of hours a week to be devoted to each subject is specified. Your committee hardly feel that they can do this. It can be done better by the superintendent and the special primary teacher, if in their

judgment it is wise to do it; but the committee do feel that they cannot report on the needs of the primary schools without emphazing the fact that the teachers in the lower grades need a careful time schedule for each day just as much as the teachers in the upper grades do. Perhaps there is even greater danger that without it the time there will slip unprofitably away. Of course the teachers need not be slavishly tied to it, nor feel unable to change the order, or even the whole plan, if circumstances require; but time is sure to be wasted by desultory work anywhere. And it is very evident that a great deal of time is wasted, and that a great deal of mischief is bred of idleness between the recitations. This evil is not confined to the primary schools, but its cure can begin there, and your committee believe that a program for desk work should be written upon the board every day where every child can see it; that this program should be carefully made and often varied; and that it should contain work enough to keep the brightest child busy all the time that he is out of class. The children should follow this program according to their respective capacities; for there is no need of uniformity, no possibility of it, in fact, and no expectation that the whole of the work planned out will be done by every child every day. There are, indeed, some decided advantages in having several occupations going on at the same time; the children learn independence and acquire the power of concentration, and they have no temptation to copy from each other. By judicious changes in the order, however, each child could be made to do a fair amount of all the different kinds of work each week. But it is not the amount of work that is the principal end to be gained. The real object of this program is to teach the children the invaluable art of taking care of themselves, and of keeping wholesomely busy without asking questions or depending upon the teacher for explanations when she is occupied with some one else. In this way an immense amount of friction might be saved both for the teacher and the children. Experience has shown that even the youngest classes can very soon learn to read such a program and to follow it intelligently, and that they will do so. In these days when so much stress is laid on the art of teaching, there is danger that the art of learning may be neglected; and the most serious criticism that has ever

been made upon our schools is that they do not train the pupils to read and think and study for themselves. If the children in the lowest grades can be made to feel that they must depend upon themselves, at least to the extent of following out a written program, which is certainly all that can be expected of young children, they may gradually learn self-reliance and presently be able to make out their own program, and in course of time to work systematically without one; and so one long step will have been taken towards curing this most serious of all defects. The work accomplished by the children must of course be inspected by the teacher, but the task need not be as formidable as it might at first appear. A trained teacher can take in at a glance the value of a great deal of clay modelling or stick-laying or paper-folding, or even of a few lines of writing, either of words or of music; and the number work, if done on paper, might sometimes wait for the next day's recitation.

MANUAL TRAINING.

Your committee cannot neglect to mention a subject which, at the present time, is occupying the attention of many who are prominent in the educational world, and which is exciting the greatest interest in the community in general,—manual training. The subject is an important one, and it presents some serious difficulties, and in the judgment of this committee it cannot be wisely considered in connection with the primary schools alone. The gap is very great between the careful training in this direction in the kindergartens and the admirable training which the boys of the English high school get in the manual training school, that institution of which the city is so proud and for which it is so grateful to one of its most public-spirited citizens. A slender line of work in connection with drawing and a little sewing for the girls alone serve to bridge over this long space. This committee would therefore recommend that a committee of five be appointed to consider this subject in connection with the whole course in the public schools of this city.

RECOMMENDATIONS.

In conclusion your committee present the following orders for your consideration :

1. Ordered, That, beginning with the school year 1893–94, a special teacher may be appointed in any school of seven, or more than seven, rooms.

2. Ordered, That the committee on the training school employ, at a salary not exceeding four hundred dollars a year, two teachers, in addition to the number now authorized, to act as substitutes when needed; and, when their services are not so required, to act as special teachers in the primary schools to which they shall be assigned by the superintendent.

3. Ordered, That pupils shall be admitted regularly to the primary schools on the first school day of March and of September only.

4. Ordered, That, to secure the training given by the study of natural science, botany be introduced into all three grades of the primary schools in September, 1893.

5. Ordered, That the Ling system of Swedish gymnastics, as adapted for the primary schools of Boston, be used in all the grades of the primary schools of Cambridge.

6. Ordered, That the committee on text-books and courses of study be hereby authorized to employ suitable persons to give instruction in botany and in the Ling system of Swedish gymnastics to the teachers of the primary schools.

7. Ordered, That a committee of five be appointed to consider the subject of manual training in connection with all the grades of the city schools.

ELLEN A. GOODWIN.
WM. A. MUNROE, *Chairman.*
FREDERIC W. TAYLOR.
ANNE C. STEWART.

The foregoing report and orders were adopted June 1, 1893. The report is signed by only four members of the committee of five, as the term of office of one member expired December 31.

During the year the course of study has been revised; a special teacher appointed in each of the three largest schools; a

larger number of substitute teachers employed; the Ling system of Swedish gymnastics introduced, and a special teacher of botany and one of gymnastics appointed.

By this action of the committee the suggestions and recommendations made in the report have been carried into effect.

Kindergartens. There are now seven kindergartens, a new one having been opened in the Gannett schoolhouse last April. The number of pupils is three hundred twenty-six, and the number of teachers thirteen. The cost of these schools the past year has been nearly six thousand four hundred dollars, or about twenty dollars per pupil. Their educational value becomes more and more apparent every year, and it is hoped that their number may be steadily increased until all parts of the city share alike in the benefits to be derived from them.

Evening Schools. There are four evening schools, one high school and three elementary schools. By the rules of the committee these schools begin on the second Wednesday of October, and continue every Monday, Wednesday, and Friday evening for fifty evenings. No complete account of them can therefore be given at the time of writing the annual report.

The evening high school is held in the English high school building. Mr. Joseph A. Coolidge is the principal. Instruction is given in arithmetic, book-keeping, penmanship, English composition, English literature, civics, history, algebra, geometry, phonography, Latin, French, and German. The average attendance of the school for 1892–93 was one hundred forty-seven, and the number of teachers was nine. The cost of instruction per pupil was nine dollars twenty cents. At the graduating exercises the mayor presented diplomas to such pupils as had satisfactorily completed the prescribed course of study. The committee on evening schools recommend that higher attainments be required for admission to the school.

The evening elementary schools for several years have occupied rooms in three of the grammar school buildings, the Allston, Putnam, and Webster. No essential change has been made in their organization and management since they were provided with the ample accommodations they now have.

They seem to be doing good work, and every facility should be afforded to make them more efficient. It certainly is a hope-

ful sign when so many persons show such an earnest desire for improvement as gladly, after a toilsome day's work, to spend their evenings in these schools.

The statistics for the schools for 1892-93 are as follows: Average attendance in the Allston school, eighty-eight; cost of instruction per pupil, seven dollars thirty-nine cents. Average attendance in the Putnam school, one hundred twelve; cost of instruction per pupil, eight dollars forty-one cents. Average attendance in the Webster school, seventy-three; cost of instruction per pupil, seven dollars twenty-eight cents.

Evening Drawing School. This school is under the supervision of the director of drawing for the day schools. The average attendance of the school for 1892–93 was: Free-hand class, fifty; mechanical class, ninety-two. The cost of instruction per pupil, allowing five hundred dollars of the director's salary for his services in the school, was fourteen dollars thirty cents. At the close of the school, diplomas were given by the chairman of the committee on drawing to such pupils as had satisfactorily completed the prescribed course of three years.

Drawing. Mr. Walter F. Brackett who was elected director of drawing in June 1889, resigned his position in 1893. He is now superintendent of the manual training school in Haverhill, Mass While director, he prepared for the Cambridge schools a very complete outline of a course in drawing, and this course is still followed. Mr. James M. Stone was elected Mr. Brackett's successor, and he entered upon his work at the beginning of the school year in September. On the recommendation of the committee on drawing it was voted that an assistant teacher of drawing be employed, and Miss Lucia N. Jennison was elected to that position. Her work is principally in the primary schools.

Music. During the year the outline of the course of study in music has been revised, and a manual for the first grade prepared. Music is now taught in all the grades of the schools. At the graduating exercises of the Latin school and also of the English high school the music, both vocal and orchestral, was furnished by the pupils of these schools. The two schools have an orchestra of fifteen pieces.

Sewing. No change has been made in the work of sewing. Instruction continues to be given to the fourth, fifth, and sixth

grades for three-quarters of an hour, once a week in each grade. By the death of Miss Jones the city lost the services of a faithful teacher. Miss Jones was appointed in 1890, when sewing was introduced into the schools.

Truant Officers. In January, 1893, the number of truant officers was increased from three to four. With this increase of force, it was possible to investigate more thoroughly the cases of absentees. By the report of the committee on the truant officers, it appears that twenty-five hundred more cases were investigated than last year; and that, notwithstanding this large increase in the number of cases investigated, there was no increase in the amount of truancy, owing it is believed to the prompt and vigilant efforts of the officers.

In September, the school committee received a communication from the overseers of the poor to the effect that, by closing the truant school, the space it occupies in the almshouse could be utilized in such a way as greatly to increase the comfort of the unfortunate people in the institution.

The school was closed, and twelve truants were sent home on probation. Not until January 12, 1894, was any legal provision made for the further care of these or any other truants.

Schoolhouses. A larger number of schoolhouses than last year are in a satisfactory condition. New plumbing has been put into the Dunster, Holmes, Reed, Riverside, Tarbell, Wyman, and Agassiz school buildings. Similar work should be done in several of the other buildings the coming year. The janitors, now under the control of the school committee, have, as a rule, been faithful and efficient. In December, the committee on schoolhouses recommended that, "In view of the importance of the work and the serious responsibility incurred, the Civil Service Commissioners be requested to include in their classification the janitors of those schoolhouses which are heated by steam or hot water, or in which the Smead system of heating and ventilation is used, in order that only efficient persons may be eligible to appointment." This recommendation has been carried into effect, and only such persons as are found competent will be appointed in the future.

The committee also suggested the advisability of having a competent mechanic appointed as head janitor, who should di-

rect the other janitors and oversee their work, attend to the placing and removal of desks and other furniture, and make the numerous small repairs about the buildings.

A new schoolhouse has been built at the corner of Broadway and Sixth street, to take the place of the old Bridge schoolhouse on Pioneer street, erected in 1836. The new schoolhouse contains six rooms, but only four are finished. It is well-heated and ventilated. The building cost sixteen thousand eight hundred dollars, and eight hundred dollars was expended for the furniture. The land was owned by the city. The school has been named the Parker school, in honor of the Rev. Joseph W. Parker, D.D., who for ten years was a member of the school board.

A new schoolhouse is needed in Ward Three and one in Ward Five; and in the near future one will be required to accommodate the pupils of the Belmont district.

Teachers. There are now two hundred ninety-seven teachers in the schools of Cambridge. Forty of these have been appointed during the year. No person is eligible to an appointment in the grammar and primary schools who has not had advantages equivalent to a high school course, a normal school course, and a year's experience in teaching; and it is the duty of the committee on the examination of teachers to enquire and report as to the qualifications of all persons nominated to be teachers in these schools and in the kindergartens, below the grade of master, before final action on such nominations is taken by the board. The importance of the duties of this committee can hardly be over-estimated. Without good teachers there can be no good schools.

Miss Elizabeth E. Dallinger. For thirty-five years Miss Dallinger taught in the Bridge school, and she was its principal at the time of her resignation, September, 1892. Since the last annual report was issued Miss Dallinger has died. It seems fitting that a recognition should be made of her peculiarly valuable service in connection with the Bridge school. This school was in one of the least favored parts of the city, and many of the little children who came to it needed a mother's care even more than a teacher's instruction. In Miss Dallinger they found both mother and teacher.

Harvard Lectures. Last year three courses were given to the grammar school teachers of Cambridge—one each in geography, geometry, and physics. This year the University has provided courses in English composition, in physics, and in botany; and these courses are open not only to teachers in Cambridge, but to those of other places. The purpose of these lectures, and the conditions on which they were offered, will be seen by the following quotations from the circular issued by the University in announcing the "Courses in Education and Teaching" for the college year 1893–94.

1. Training course in English Composition for grammar and primary school teachers. Mr. GATES.

This course is intended to supplement the training which the teachers have already received in expressing their own thoughts in correct English, so that they may be better able to plan and to criticise intelligently the written work of their pupils. It is not intended to lay out a course of instruction for primary or grammar school pupils, but to give the teachers thorough personal instruction in this important subject. Every member of the class will be expected to write a careful composition each week. The compositions will be examined and corrections and suggestions will be noted upon them. On Saturday mornings at nine o'clock the class will assemble for an informal exercise, including suggestions as to the best methods of English composition, and the discussion of selected essays. These exercises will occur on each Saturday during the regular lecture period in the college, making thirty exercises in the course of a year.

The class will be limited in number to thirty. While intended only for grammar and primary school teachers it may be possible to receive one or two high school teachers.

The fee for the course will be $20.00 for the year, except to Cambridge teachers, who, by vote of the Corporation of the University, will be admitted without fee; but it is expected that such teachers, or the City of Cambridge, will provide for any extra expense for correcting their exercises.

2. Training course in Experimental Physics for grammar school teachers. Assistant Professor HALL.

The course in experimental physics offered last year to the grammar school teachers of Cambridge will be repeated during the year 1893–94. Meetings will be held in the Jefferson Physical Laboratory on Saturdays from eleven to one. The course is intended to give teachers the ground-work in the simpler subjects of experimental physics. The experiments will include among others those adopted by the Cambridge school committee for the Cambridge grammar schools; but it is not intended that the laboratory work shall be simply a duplicate of the school work. In addition to the laboratory exercise it is expected that members of the class will spend not less than two hours a week in reading and in performing experiments for themselves in the grammar school or high school laboratories. The number of exercises in the course of the year will be

thirty. By the size of the laboratory the number of the class is limited to twenty-four.

The fee for the course is $20.00; but teachers of the Cambridge schools will be admitted, under vote of the Corporation, without fee.

3. Training course for primary and other teachers in Laboratory Botany. Professor GOODALE.

During the academic year 1893–94 a course in botany will be given in the laboratories of the Botanical Museum. The course is intended to teach observation and analysis, and will be conducted in part by lectures and in part by demonstrations made by the instructor; but principally by laboratory work under the direction of assistants responsible to the instructor in charge. The class will meet every Saturday at nine o'clock during the academic year, making a total of about thirty-six exercises. The work of the course, including the general exercises will not be less than four hours weekly. The course will be limited in number to seventy five.

The fee is $20.00 for each number; but, by vote of the Corporation, Cambridge teachers will be admitted without fee. In addition each teacher, from Cambridge or elsewhere, will be expected to pay for the necessary botanical materials, a charge which will not exceed $3.00 for each person.

FRANCIS COGSWELL,
Superintendent of Public Schools.

In School Committee, Feb. 15, 1894.

Voted, That the report prepared and read by the superintendent be adopted as the annual report of the school committee for 1893, and that the secretary be authorized to append the names of the members of the committee thereto.

SANFORD B. HUBBARD,
Secretary.

Members of the School Committee for 1893.

WILLIAM A. BANCROFT, *Chairman ex officio.*

ELLEN A. GOODWIN,	EDWARD B. MALLEY,
WILLIAM TAGGARD PIPER,	WILLIAM H. CLANCY,
*ALBERT BUSHNELL HART,	CHARLES F. WYMAN,
†FRANK W. TAUSSIG,	WILLIAM A. MUNROE,
PHEBE M. KENDALL,	MARY E. MITCHELL,
ROBERT O. FULLER,	GEORGE P. JOHNSON,
ALPHONSO E. WHITE,	CAROLYN P. CHASE,
ANNE CLARK STEWART,	FREDRIC W. TAYLOR.

*Resigned, Sept. 21. †Elected, Oct. 17.

REPORT

OF

Joint Special Committee Appointed by the City Council to Investigate the Cost of Electric Lighting and Report with Recommendations.

In Common Council,
November 14, 1893.

The Joint Special Committee to which was referred the accompanying resolve declaring that it is expedient for this city to exercise the authority conferred by Section 1 of Chapter 370 of the legislative acts of the year 1891, to manufacture and distribute gas and electricity, and which was requested to investigate the probable cost of electric lighting and report thereon, herewith submits the following report:—

Recognizing the importance of the subject under consideration, especially if favorable action thereon is the final result, your committee has been slow to report its conclusions, deeming it best to wait until near the end of the municipal year, that it might profit by the latest developments, favorable or otherwise.

The subject simply embodied two questions: first, as to whether or not, the city is obtaining its light at as low a cost as it ought, or is likely to in the near future, and second, if not, then whether or not it would ultimately be able to do so by the adoption of the resolution, and the taking of such further action as would be required thereafter.

In the discussion of the first question the inquiry naturally presents itself at once as to how the price paid by Cambridge compares with that paid to private companies for public lamps by other cities and towns in this State or elsewhere.

We found that it was most difficult to make a general com-

parison, as statistics published in various periodicals from time to time were insufficient and of little value for the uses of this committee, in that they did not give sufficient details of the kind of power used to produce the light, whether water or steam, the kind of fuel used and its cost, the candle power of the lamps, and the number of hours the lamps were burned during the year; all of which information is requisite to get at a fair basis of comparison with our local company. There are a few cases however where the conditions appear to be practically the same, and they are given in a schedule hereto annexed, marked A, and will perhaps be sufficient for the purpose.

In some cases the lamps though burned all night are not burned *every* night, but are charged for at so much per night, and the figures given are on the basis of their burning *every night*, that being the only fair way to present it.

This schedule shows that there are nine different prices, the average being $111.77, the highest $126.73, the lowest $83.00, Cambridge paying $115.00.

Where the lamps are burned only *until midnight* or until say 1 A. M., as per schedule hereto annexed marked B, there are nineteen different prices paid, the average being $96.11, the highest $129.25, the lowest $78.57.

For general information and for purposes of comparison it is desirable to show similar schedules for lamps of 2,000 candle-power and by these schedules it appears that for lamps burning all night and *every night*, as per schedule C, there are nine different prices paid, the highest being $174.10, the lowest $120.00, except that in Augusta, Maine, it is $75.00, the lights there burning twenty-four hours in the day, and being run by water power. Leaving out this last, the average price of the remainder is $143.36.

Where lights are burned every night but only *until midnight* or until say 1 A. M., as per schedule marked D, there are eight different prices paid, only two being alike: the highest being $146.00, the lowest $66.95, and the average $101.42.

The attention of your committee was called to the fact that municipal plants for supplying electric light had been established in various parts of the United States, Massachusetts

included, but we found that the larger number by far were located in the West, and the statistics concerning them were also found to be of but little value, for the reasons before mentioned; a list of these however, prepared by the committee appointed in Youngstown, Ohio, to investigate the subject of electric lighting, is annexed hereto and marked E, and furnishes some information of value.

It is fair to infer that the greater part of the lamps used in the twenty-three cities and towns included in the list are of 2,000 candle power and that none of them are less than 1,200 candle power, which latter is the same as are now in use in this city and for the purposes of this report it is sufficient to assume that all are of only 1,200 candle power. According to this list the average cost per lamp per year is $54.03 and in all but four cases the cost is less than $60 per lamp. The highest cost of all, however, is $81.44 in Easton, Penn., with coal at $2.85 per ton, and if the higher price for coal delivered here in Cambridge was added to this cost, it would be about $84.50 per lamp, which, it is worthy of notice, is almost exactly the price which is paid by the city of Springfield in this state. The plant in Easton is only a small one of but a little over 100 lights, and it is only reasonable to expect that a larger number of lamps can be run for a less average price.

The report of that committee further states "that the cost of maintenance" in the twenty-three cities and towns referred to, "varies relatively with the price of fuel from Lewiston, Me., at $43 per light, where water power is used, and Bay City, Mich., where the fuel is shavings and the cost$46 per light; to Chambersburg, Penn., at $78 per light, where coal is $3 per ton, and Little Rock, Ark., at $69.83 per light, where coal is $3.15 per ton. The average cost per light, however, in the twenty-three cities named above is $54.03, and the saving over prices formerly paid under the contract system (where the figures are given) ranges from 14 to 180 per cent. In fact, no data has been obtained from any source that does not show a large percentage of saving in favor of the municipal ownership plan."

The City of Detroit has been paying for lights of 2,000 candle power, burning *all night* and *every night*, only $129, and yet was so confident that it could do better under municipal control,

that on submitting the question to a vote of the people at the spring election this year, the vote was over 15,000 in favor and less than 1,300 against, and as a result a plant is now in process of construction of a capacity for 2,000 lamps of 2,000 candle power each and they expect to reduce the price to pretty nearly one-half the present cost and the larger part of the wires are laid under ground, which adds enormously to the cost. The entire cost of the plant is to be something under $600,000.

Your committee felt, however, that their conclusions should be based on information and experience obtained as near home and under circumstances as nearly like Cambridge as possible, and consequently examined the municipal plants recently established in Braintree and Peabody in this State, especially the latter, it being the larger plant of the two, and running about 150 arc lights of 1,200 candle power, the same as used in this city; it was run as a municipal street lighting plant, pure and simple, for a little over a year up to October 1, 1893, and the result, as given in a recent communication from the general manager of the plant, shows that the cost per lamp for the year has been $70.42. It should be borne in mind, however, that the lights were not burned on clear moonlight nights, but if they had been burned *all night* and *every night* in the year (that is from half an hour after sunset to half an hour before sunrise, 3,775 hours), the cost would have been about $75 per lamp.

This price includes all operating expenses, interest at four per cent, taxes at $15 per $1,000, insurance, and five per cent on three-fifths of the cost of the entire plant, for depreciation, being every known element of cost, except water, for which it would be fair to add say roughly, $2 per lamp per year, making a total of $77 per lamp. But this is only on about 150 lamps, while if the plant was run at double this number, as it has capacity for doing, the average price for 300 lights, the manager informs us, would be very much less per lamp.

So successful has been the operation of the plant that within a month incandescent lighting has been added, and is now furnished at very moderate cost, and the same has been done during the past summer in the Braintree plant; the only other addition that might be added to the above cost to place it on a perfectly

fair basis with Cambridge, would be interest on the greater value of land for a plant in Cambridge and the larger cost of poles and wires, both of which, however, would be comparatively small, as the West End Street Railway Company bears one-half the cost of a great many of the most expensive of such poles, and also one-half the cost of their maintenance.

It is therefore fair to presume from all the foregoing that if Cambridge was free to construct a new plant of its own at the present time, it could easily furnish street lights such as it now has at a cost not exceeding $75 per lamp per year, as against $115, the price it now pays, which in round numbers would be equal to an annual saving of $20,000, and could furnish incandescent lights for the public buildings at very much less than it now pays. But the city is unable to do this on account of the existence of the Cambridge Electric Light Company, as under the law, *as it stands to-day*, the city cannot maintain a plant without being obliged to purchase this company's plant if the company should see fit to so require, and its president has stated that it certainly should require it, as without the business given to it by the city the company would be bankrupt within three months.

A hearing was therefore given to the company by the committee on May 24, last, in order that it might present such facts as it desired, bearing on the question, at which the president of the company, its book-keeper and engineer were present, and during which, it appeared that the company was unsuccessfully started at an experimental period and had been obliged to make changes from time to time as improvements in machinery have developed, on one occasion being obliged to sell some of its old machinery at a net loss of $35,000.

According to the report of the Board of Gas and Electric Light Commissioners, it appears that for the year ending June 30, 1892, the company earned and paid a dividend of six per cent. on its capital stock and had a balance or surplus left over equal to nearly five per cent. more. The president stated that that was an unusually profitable year on account of their furnishing the West End Street Railway Company with power, but it appears from the books of the company that for he past year ending November 1, 1893, during which time no power has been furnished the

West End Railway, the net earnings of the company have been almost exactly the same as in the year above referred to; this is undoubtedly owing to the natural increase of the commercial business and to the contract with the city for street lights.

The president further stated, that by vote of its board of directors, it was not soliciting any new business, commercial or otherwise, which would oblige it to increase its plant, but admitted, however, that if the company should do as large a commercial business as the United Company in Springfield, it would be able to furnish lights to this city at a much lower price. He also stated that at the time the contract was made in Springfield, there were two competing companies there that the price made was known to be under cost, and that after the contract was made the companies consolidated. We are credibly informed, however, that the city is about to make a new contract and expect to do so at a lower price than before, and, notwithstanding the low price at which it gets its lights, both branches of its City Council voted favorably upon a resolution on the same effect as that now before this City Council, such action having been recommended by the committee on lighting streets. The president of the Cambridge company also stated that even at the end of the present contract with this city he does not expect to be able to furnish the light at anything less than $110 or $105 each.

The question now comes, what better could the city do if it were to take this same plant at a fair valuation an run it as a municipal plant. The answer seems clearly to be that there is no reason why the city could not run the plant as economically as it is run now (especially as there are at present some expenses which would then be unnecessary), and ought at least to save the difference in interest on bonds of the city at four per cent., and those of the company at five per cent., when due, $2,000; on bonds of the city at four per cent., and dividend of the company at six per cent., $4,000; and the surplus earnings of the company, say $9.000 — making a total of $15,000, which is equal to $33.33 per light for the 450 lights now located in the city,bringing the price down to $81.67 each instead of $115, and there is little doubt but the rapid development of the commercial business would add materially to the profits, the company being now taxed to its utmost capacity.

In conclusion, your committee would say, that it has endeavored to faithfully and impartially perform the duty imposed upon it, and while it is aware that it is next to impossible to give figures on this subject which may be called accurate, it has done as nearly so as the nature of the case permits, and believe they are sufficiently accurate for all practical purposes. The committee finds that very many cities and towns have passed the necessary vote under the Act of 1891, some of them twice, in most cases by a large majority, and in three towns, at least, the plants are already established and are a decided success.

If the question before the City Council was for final action in the matter, we should feel it our duty to make yet more extended investigation of the subject at this time, but as final action must be taken by the next City Council, they do not deem it necessary. We find that the city does not obtain its light at as low a price as it should, considering the number of lights in use, and that it is not likely to in the near future nor at the expiration of its present contract, as the statement of the president of the company shows, and in view of all the foregoing we recommend the adoption of the resolution now before you.

Respectfully submitted,

JOHN R. FAIRBAIRN,
E. B. JAMES,
C. W. CHENEY,
J. HENRY RUSSELL,
RUSSELL BRADFORD,
GEORGE ALLEN,
LOUIS F. BALDWIN,

Joint Special Committee.

Schedule A.

Lamps of 1200 candle power burning *all night* and *every* night:—

	Price per Year.	Number of Lights.
Newton	$126 73	102
Pittsfield	122 27	15
Holyoke	121 67	189
New Haven, Conn.	113 15	339
Nashua, N. H.	112 00 (coal $6.)	187
Andover	111 33	31
Chelsea	109 50	175
North Adams	109 50	87
Springfield	83 00	465
Stamford, Conn.	108 53	140
	10)$1,117 68	
Average	$111 77	

Hartford, Conn. (1300 candle power), $79.20 (water power), 502.

All the above are Private Corporations.

Schedule B.

Lamps of 1200 candle power burning only until mid-night or until say 1 A. M., *every* night:—

	Price per Year.	Number of Lamps.
Whitman	$129 25	27
Taunton	124 10	79
Beverly	109 50	80
Lynn	109 50	113
Southbridge	109 50	51
Waltham	109 50	71
Winchendon	91 25	22
Spencer	104 17	70
Medford	100 00	49
Marlborough	100 00	55
Milford	98 55	96
Millbury	97 33	26
Plymouth	97 33	18
Gloucester	96 00	24
Gardner	95 05	47
Wakefield	91 25	29
Framingham	91 25	55
Natick	91 25	34
Northampton	91 25	134
Hudson	91 25	14
Malden	90 00	90
Amount carried forward,	$2,117 28	

Schedule B—*Continued.*

	Price per Year.	Number of Lamps
Amount brought forward,	$2,117 28	
Orange	87 75	31
Dover, N. H.	86 14	125
Fitchburg	85 00	133
Webster	85 50	59
Weymouth	85 17	32
Quincy	81 47	91
Pittsfield	80 30	33
Biddeford, Me.	78 57	14
	29)$2,787 18	
Average	$96 11	

Schedule C.

Lamps of 2000 candle power burning *all night* and *every* night in the year :—

	Price per Year	Number of Lights.
Brockton	$174 10	84
Haverhill	164 25	95
Salem	164 25	180
Burlington, Vt.	164 25	131
Fall River	160 60	377
Boston	146 00	1,477
Brookline	146 00	261
Charlestown	146 00	157
Lynn	146 00	215
Worcester	146 00	335
Providence, R. I.	140 52	1,300
Lowell	128 48	350
New Bedford	120 00	143
Augusta, Me.	75 00	50—24 hrs.
Detroit, Mich.	129 00	
	15)$2,150 45	
Average	$143 36	

All the above are Private Corporations.

Schedule D.

Lamps of 2000 candle power burned only until midnight or until say 1 A. M., *every night* in the year:—

	Price per Year.	Number of Lights
Arlington	$146 00	29
Belmont	131 22	11
Lawrence.	100 00	147
Biddeford, Me.	100 00	56
Burlington, Vt.	98 55	131
Franklin	85 70	22
Westfield	81 52	56
Hyde Park	66 95	115
Somerville	102 81	155
	9)$912 75	
Average	$101 42	
Augusta, Me.	$60 00	36

All the above are Private Corporations.

Schedule E.

Municipal Plants, all outside of New England, except Lewiston, Me.:—

Name of City.	No. of Lights in Use.	Cost of Fuel. Coal.	Cost of Plant.	Cost of Lights per Year.	Former cost of Lights by Contract.
Alexandria, Va,,	92	$3 07	$16,000	$55 00	.....
Aurora, Ill.,	162	1 81	41,800	58 44	$326 92
Bay City, Mich.,	180	Shavings.	30,000	46 00	100 00
Bluffton, Ind.,	85	Gas.	10,500	60 00	75 00
Bloomington, Ill.,	220	1 75	73,000	50 00	111 00
Chambersburg, Pa.,	72	3 00	20,000	78 00	.....
Emmans, Pa.,	12	2 50	3,000	48 00	.....
Easton, Pa.,	108	2 85	30,000	81 44	.....
Fairfield, Ia.,	14	2 30	6,000	72 00	150 00
Fredonia, N. Y.,	57	2 15.	13,000	35 00	.....
Grand Ledge, Mich.,	15	....	6,000	60 00	.....
Herkimer, N. Y.,	50	2 68	14,000	50 00	.....
Huntington, Ind.,	..	Gas.	15,000	55 00	.....
Little Rock, Ark.,	136	3 15	39,700	69 83	.....
Lewiston, Me.,	100	Water.	16,000	43 00	109 00
Marietta, O.,	110	1 25	18,000	60 00	.....
Madison, Ind.,	86	1 49	20,000	62 00	.....
Martinsville, Ind.,	30	....	5,000	33 00	.....
Painesville, O,	70	2 10	12,000	43 60	72 00
Paris, Ill.,	90	...	10,000	23 00	.....
Santa Cruz, Colo.,	74	Wood	.....	50 00	... ...
West Troy, N. Y.,	90	3 00	22,000	60 00	70 00
Wheeling, W. Va.,	400	4½c bushel	100,000	50 00	.....

APPENDIX.

APPENDIX.

ORDINANCES PASSED SINCE THE ADOPTION OF THE REVISED ORDINANCES OF 1892.

An Ordinance in Amendment of an Ordinance, entitled "The Executive."

Be it ordained by the City Council of the City of Cambridge, as follows :—

Section 10 of Chapter 2 of the Revised Ordinances of 1892, is hereby amended by striking out, under the heading of appointments in January, the following :

" One member of the Board of Aldermen as a trustee of the public library.

One member of the Common Council as a trustee of the public library."

[*Approved Dec.* 22, 1892.]

An Ordinance in Relation to the Salary of the Commissioner of Bridges.

Be it ordained by the City Council of the City of Cambridge, as follows :—

On and after the first day of January, 1893, the salary of the Commissioner of Bridges shall be at rate of Seven Hundred Dollars a year.

[*Approved Dec.* 28, 1892.]

An Ordinance in Amendment of an Ordinance, entitled "Duties and Salaries."

Be it ordained by the City Council of the City of Cambridge, as follows:—

Section 27 of Chapter 27 of the Revised Ordinances of 1892, is hereby amended by inserting in the third line after the word "Mayor," the words "President of the Board of Aldermen.

As amended, the section will read as follows:—

SECT. 27. No carriage shall be furnished at the expense of the city, except upon an order therefor signed by the Mayor, the president of the board of aldermen, the president of the common council, or the acting chairman of any committee of the city council; and such order shall state the purpose for which the carriage is required, and shall accompany the bill therefor as a voucher.

[*Approved Dec.* 28, 1892.]

An Ordinance in Relation to the Salary of the Assistant City Clerk.

Be it ordained by the City Council of the City of Cambridge, as follows:—

The salary of the assistant City Clerk shall be at the rate of Fourteen Hundred Dollars a year, the same to date from the first day of March, A. D. 1893.

[*Approved, March* 22, 1893.]

An Ordinance in Relation to the Inspection of Provisions and of Animals Intended for Slaughter or Kept for the Production of Milk.

Be it ordained by the City Council of the City of Cambridge, as follows:—

Section 1. The department of the inspection of provisions and of animals intended for slaughter or kept for the production of milk, shall be under the charge of the inspector of provisions and animals intended for slaughter or kept for the production of

milk. He shall be a skilled veterinary physician, shall be sworn to discharge faithfully the duties of his office and shall hold his office for the term of one year from the first day of May in the year of his appointment, subject to removal at any time by the mayor and aldermen.

Sect. 2. In addition to the duties required of him by the Public Statutes, and the acts in amendment thereof, he shall professionally visit, attend and treat, whenever necessary or whenever requested by the mayor, any and all of the horses owned by the city in the several departments thereof, and shall physically examine and report upon all horses offered for sale to said city.

Sect. 3. He shall annually, in the month of December, and whenever requested by the mayor and city council, make a full and detailed report of all matters pertaining to his department with such suggestions as he may deem proper.

[*Approved, March* 30, 1893.]

An Ordinance in Relation to the Salary of the Inspector of Provisions and of Animals Intended for Slaughter or Kept for the Production of Milk, and of the City Veterinary Physician.

Be it ordained by the City Council of the City of Cambridge, as follows:—

The salary of the Inspector of Provisions and of Animals intended for Slaughter or kept for the productions of Milk, and of the City Veterinary Physician, shall be at the rate of Seven Hundred Dollars a year, to date from the first day of March, A. D. 1893.

[*Approved, March* 30, 1893.]

An Ordinance in Amendment of an Ordinance in Relation to Ice for Domestic Uses.

Be it ordained by the City Council of the City of Cambridge, as follows:—

Chapter 39 of the Revised Ordinances of 1892 is hereby amended by striking out in the fourth and fifth lines of Section

1, the words "provisions, and of animals intended for slaughter or kept for the production of milk," and inserting in the place thereof the words, "milk and vinegar," and by striking out all of Section 3 after the word "samples" in the sixth line, and inserting in place thereof the words "and make or cause to be made proper and careful analysis of the same;" and by inserting in the second line of Section 4, before the word "receiving" the words completing any analysis or," so that said sections as amended will read as follows:—

Section 1. All persons who intend to sell or distribute ice in this city for domestic purposes, shall, before the fifteenth day of April in each year, give notice of such intention in writing to the inspector of milk and vinegar, which notice shall state particularly the source or sources from which their ice is taken.

Section 3. Sometime during the month of April in each year, and at such other times as he may deem proper, the said inspector shall examine, or cause to be examined, the ice and the sources of supply of ice which is offered for sale or distribution in this city for domestic use; and he shall take samples and make or cause to be made proper and careful analysis of the same.

Sect. 4. The said inspector shall, immediately upon completing any analysis or receiving the result of any analysis made by virtue of this ordinance, make a full report to the Board of Health of this city, and file a copy of the same with the City Clerk, which reports shall always be open to public inspection.

[*Approved March* 30, 1893.]

An Ordinance in Relation to Street Watering, and in Amendment of Section 5 of Chapter 24 of the Revised Ordinances of 1892.

Be it ordained by the City Council of the City of Cambridge, as follows:—

Section 5, of Chapter 24 of the Revised Ordinances of 1892 is hereby amended by inserting in the fifth line after the word "treasurer" the words: "or when authorized by the City Council."

As amended the section will read as follows :—

Section 5. The Superintendent of streets shall contract with some suitable person or persons for watering any street or streets, when an amount equal to one-half the expense thereof has first been subscribed and paid into the hands of the treasurer, or when anthorized by the City Council ; but no money shall be paid from said appropriation for any watering not done in pursuance of a contract so made.

[*Approved, April* 5, 1893.]

An Ordinance relating to Excavations, Obstructions and Projections in Streets, and Amending Chapter 24 of the Revised Ordinances of 1892.

Be it ordained by the City Council of the City of Cambridge, as follows : —

Chapter 24 of the Revised Ordinances of 1892 is hereby amended by striking out sections ten, eleven and twelve and substituting the following :

Section 10. No person shall break or dig up the ground or stones in any street, or on any sidewalk, or erect any staging for building, or place or deposit any stone, bricks, timber or building materials thereon, or otherwise occupy, obstruct or encumber the same, without first obtaining a written license from the Mayor or some person by him authorized for that purpose and complying in all respects with the conditions of such license.

Sect. 11. The Mayor, or any person by him authorized for that purpose, may grant a license, in writing to any person, for the purpose of building or other lawful purpose to open, occupy obstruct or encumber so much and such parts of any street or sidewalk as the Mayor, or person authorized by him as aforesaid, shall deem safe and proper, and such license shall specify the time, place, size and use of such opening, occupation, obstruction or encumbrance and the time within which the street or sidewalk must be put in good condition, and shall be on condition that the person accepting such license shall put and at all times

keep up, a suitable railing or fence around the section or part of any street or sidewalk so opened, occupied, obstructed or encumbered; that such person shall place and maintain from the beginning of twilight through the whole of every night, over or near the place so occupied, opened, obstructed or encumbered, and over or near any dirt, gravel or other material taken therefrom or to be used by him, a light or lights sufficient to protect travellers from injury; that such person shall place and maintain a safe and convenient way for the use of foot-travellers around or over such place; that if such person does not within the time prescribed in said license, put the street or sidewalk in good condition satisfactory to the Superintendent of Streets, the person accepting the license shall pay whatever sum the Superintendent of Streets may expend for putting the street or sidewalk into such condition; that the person accepting the license shall conform to the statutes and ordinances and specifications in the license; that the license may be revoked at any time by the authority issuing it; that the violation of any of its specifications shall work an immediate revocation of the license; that such person shall indemnify and save harmless the city from any damage it may sustain, or be required to pay, by reason of the doing of the work licensed, or by reason of any act or neglect of himself or of any of his employes relating to such work, or by reason of any violation of any specification; and that he shall deliver up the license to an officer of the police force of the city, on or before the expiration of the time fixed in the license for completing such work; such license to be returned by such officer to the street department.

The Mayor or any person authorized by him, may, in addition to said specifications, specify in the license, or after the issuing thereof, in writing, the kind of rail or fence to enclose the place, and the kind of way over or around such place and the manner of constructing the same, and nothing herein contained shall be construed to prevent the insertion in the license of any other specification deemed advisable by him.

Sect. 12. Whenever any street is opened, occupied, obstructed or encumbered by any department of the city, or any corporation or person, the Superintendent of Streets shall prevent any unnecessary obstruction while the work is in progress, and shall

see that the street is repaired and put in good order when the work is completed. If the street is not repaired to his acceptance, he shall forthwith put the same in good order, and shall render a bill for the expense of such repair to the department, corporation or person whose duty it was to repair the street. All openings made in the street for any purpose whatever shall be filled back in layers six inches in depth, and each layer shall be properly rammed, and when necessary, shall be wet down to prevent settling of the filling.

Before any license hereinbefore described is delivered to any person for the applicant therefor, such person, unless he is an employe of the city, employed on public work, shall certify that a copy of the permit entered in a book kept for the purpose, is a correct copy of the license he received, and the applicant, unless the application is made in behalf of a department of the city, or by a person who has given bond and who applies for a license in accordance with the provisions of Chapter 22 of the Revised Ordinances of 1892, shall give a bond in the sum of one thousand dollars, with one or more sureties satisfactory to the Mayor or to such person as may be authorized by him to issue the license, conditioned to the faithful observance of the conditions and specifications of every and all licenses issued to the applicant by the Mayor or by such other person authorized by him as aforesaid; and the Mayor or other person authorized by him as aforesaid, may at any time require a new bond which shall be considered a strengthening bond, unless the sureties on the former bond or bonds are expressly released from their liability by a vote of the City Council.

Said Chapter 24 is hereby further amended in Section 13, by striking out the word "twelve" in the fourth line, and inserting in place thereof the word "eleven." As amended, the section will read as follows:—

Sect. 13. Whoever maliciously or wantonly, and without legal cause, extinguishes or diminishes a light fixed in accordance with the provisions of Section Six, or of Section Eleven, shall be liable to a penalty of not less than ten nor more than twenty dollars.

[*Approved, April* 13, 1893.]

An Ordinance in Amendment of an Ordinance in Relation tc Duties and Salaries.

Be it ordained by the City Council of the City of Cambridge, as follows :—

Section 29 of Chapter 27 of the Revised Ordinances of 1892 is hereby repealed.

[*Approved, April* 27, 1893.]

An Ordinance in Relation to the Salary of the Inspector of Milk and Vinegar.

Be it ordained by the City Council of the City of Cambridge, as follows :—

From and after the first day of April, 1893, the salary of the Inspector of Milk and Vinegar, shall be at the rate of Nine Hundred Dollars a year.

[*Approved, April* 27, 1893.]

An Ordinance in Relation to the Rates Charged for the Use of Water.

Be it ordained by the City Council of the City of Cambridge, as follows :—

For the year beginning on the first day of May, 1893, a discount of ten per cent. from the existing rates for water shall be allowed to all consumers, except such as are supplied through meters.

[*Approved, April* 27, 1893.]

An Ordinance in Amendment of an Ordinance in Relation to Fire Department.

Be it ordained by the City Council of the City of Cambridge, as follows :—

Section 4 of Chapter 11 of the Revised Ordinances of 1892, is hereby amended by adding at the end thereof the following :—

There shall be appointed one more driver than those required for the exisiting engine and hook and ladder companies. The Chief Engineer may designate one of the drivers in the fire department to act as driver of his wagon. Such person shall be constantly employed and shall at all times be in or about the engine house except when on duty elsewhere, unavoidably absent or excused from duty by the Chief Engineer.

[*Approved*, *May* 4, 1893.]

An Ordinance in Amendment of an Ordinance entitled General Provisions, and Creating a New Department of the City.

Be it ordained by the City Council of the City of Cambridge, as follows:—

Section 16, of Chapter 1, of the Revised Ordinances of 1892, is hereby amended by inserting after the words "Inspection of milk and vinegar department," in the fifteenth line, the words: "Inspection of provisions and animals intended for slaughter or kept for the production of milk."

[*Approved*, *May* 10, 1893.]

An Ordinance in Relation to Plumbing.

Be it ordained by the City Council of the City of Cambridge, as follows :—

Section 1. No person shall do or carry on the business of plumbing in this city unless he first registers his name and place of business in the office of the board of health, and notice of any change in the place of business of a registered plumber shall be immediately given to the board of health.

Sect. 2. Before doing any work in a building each plumber shall, except in repairs of leaks or other repairs which do not involve the change, substitution or addition of fixtures or drainage, file in the office of the board of health, upon blanks provided for the purpose, a notice and a particular description of the work to be performed. No pipes, tanks, faucets, valves or

other fixtures shall be placed in any building in the city except in accordance with plans or specifications which shall be approved by the board of health or such person as the board of health shall designate.

Sect. 3. The board of health may prescribe rules and regulations, not inconsistent with the ordinances of the city, concerning materials, and the construction, alteration, and inspection of all pipes, tanks, faucets, valves and other fixtures by and through which water or sewage is used and carried. The board of health may likewise make and enforce such regulations as it deems necessary for the safety and health of the people with reference to house drainage and its connection with public sewers, whenever a public sewer abuts the estate to be drained.

Sect. 4. Every building shall have its sewage conducted into a common sewer whenever there is a common sewer near by in the street adjoining the premises upon which such building stands, and whenever in the opinion of the board of health it may be necessary as a health measure, upon its order, any drain and any connection with a common sewer shall be reconstructed by the owner thereof and at his expense.

Sect. 5. Such portion of house drains as are outside of buildings, and extend more than five feet beyond the foundation walls, shall be constructed of cast iron soil pipe, or of vitrified drain pipe.

Sect. 6. Such portions of house drains as are within buildings, and also such portions as are without, and less than five feet beyond foundation walls, shall be constructed of heavy cast or wrought iron pipe.

Sect. 7. Drain pipes intended to receive the discharge from water closets and other fixtures shall be carried up through, and not less than two feet above the roof with undiminished internal diameter.

JOINTS AND CONNECTIONS.

Section 8. Joints in iron soil pipes, drain and waste pipes, shall be oakum packed, caulked with molten lead, or screw joints. Joints in lead pipes shall be wiped solder joints. Connections of iron and lead pipes shall be by means of brass caulking nipples, and the lead shall be joined to the brass by wiped

joints, and the nipple shall be securely caulked into the iron pipe or fitting.

TRAPS.

Section 9. Each water closet and urinal shall be provided with a separate trap, which shall be placed within three feet of the same, and unless otherwise specially authorized by the board of health, each wash bowl, set of wash trays, slop-hopper sink, bath tub or other plumbing fixtures shall be similarly trapped.

Sect. 10. Each main drain shall be provided with a running trap of size not less than the internal diameter of the drain. Such traps may be placed either within or without the foundation walls.

VENTILATION.

Section 11. Each trap shall be protected from syphonage or air pressure by a special air pipe, which shall be carried into the open air or connected with the soil pipe above the highest fixture, in either case in such manner as the board of health may determine.

Sect. 12. No chimney or hot flue or shaft constructed of sheet iron, brick or cement, shall be used as a ventilator for a trap or drain pipe. Vent pipes shall be constructed of the same material, and in accordance with the provisions of the ordinance governing the construction of drain pipes, and no vent pipe shall be constructed or placed in such manner that it may become trapped or filled by water from condensation or otherwise.

WATER CLOSETS.

Section 13. Each water closet and every line of water closets on the same floor shall be supplied with water from a tank or cistern of a capacity not less than four gallons to each closet. This requirement shall not apply to water closets substituted for privy vaults where they are outside of buildings, but such water closets may receive their supply directly from the main, with such fixtures as may be approved by the board of health, and the water board. No pan-closet shall be permitted, and no sluice vault or water closet constructed of brick, cement or stone.

Sect. 14. Each water closet and urinal shall be locally vented in a hot flue or chimney.

Sect. 15. Waste pipes from refrigerators or other receptacles where food is stored shall not be connected with a drain, sewer pipe, soil pipe, or other waste pipe.

Sect. 16. No steam exhaust pipe shall be connected with a drain or sewer pipe, soil pipe or other waste pipe unless the exhaust pipe shall be provided with a condenser.

Sect. 17. Each rain water leader connected with a sewer shall be separately trapped, and any portion which may be within a building, or immediately without the wall, shall be constructed of the same material and in the same manner as other drain pipes. They shall in no event be used to drain other than rain water.

Sect. 18. No cellar bottom or area shall be connected with a public sewer without special permit from the board of health, and then only under such conditions and regulations as said board shall in each particular case prescribe.

Sect. 19. Before being used or covered up all drainage and ventilation work shall be submitted to the water test by the plumber in the presence of the board of health or some person by them authorized or appointed, and all defects, or work otherwise not in accordance with these regulations removed. Notice that the work is sufficiently advanced for inspection shall be sent to the office of the board of health by the plumber.

Sect. 20. Whoever violates any provision of this chapter shall be liable to a penalty of not more than fifty dollars for each offence.

Sect. 21. Sections fifty-five to sixty-seven inclusive, of Chapter 13, of the Revised Ordinances, are hereby repealed.

[*Approved, May* 10, 1893.]

An Ordinance in Relation to the Salaries of Certain Permanent Members of the Fire Department.

Be it ordained by the City Council of the City of Cambridge, as follows : —

Section 1. The salaries of Captains of Hook and Ladder

Companies, drivers and enginemen hereafter appointed shall be as follows: —

Captains of Hook and Ladder Companies:	
First twelve months of service,	$880.00
Second twelve months of service,	980.00
After two years of service,	1080.00
Enginemen of Steam Fire Engines:	
First twelve months of servce,	1000.00
Second twelve months of service,	1100.00
After two years of service,	1200.00
Drivers in Fire Department and Enginemen of Chemical Engines:	
First twelve months of service,	820.00
Second twelve months of service,	920.00
After two years of service,	1020.00

[*Approved, May* 24, 1893.]

An Ordinance in Amendment of an Ordinance, entitled Inspection and Supervision of Electric Wires.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Chapter 14 of the Revised ordinances of 1892 is hereby amended as follows:

Strike out all after the word "fixtures" in the ninth line of Section 23, and add the following words: "And of all the conditions, terms and provisions contained in the order and the ordinances of the city and future amendments thereof, and agreeing to carry out, observe, perform and be subject to the same; and in default of such written acceptance and agreement, the permission and grant of location shall be void. Such grant and permission shall likewise be void and deemed revoked unless within six months after the date of the order the posts, conduits and other fixtures shall have been completed and erected and the electrical line constructed and put in operation thereon, and whenever the operation of the electrical lines upon any location

granted shall be discontinued for six months, the grant shall cease and be of no further effect."

As amended, this Section shall read as follows:

Section 23. Whenever permission shall be granted by the Board of Aldermen to erect and maintain posts, or to construct conduits or other fixtures in the public ways, bridges, or grounds to support or hold lines or wires for the transmission of electricity, the party to whom such permission is granted shall, within thirty days from the date of the order granting such permission, file in the office of the City Clerk a written acceptance of the location of such posts, conduits or other fixtures and of all the conditions, terms and provisions contained in the order and the ordinances of the city and future amendments thereof, and agreeing to carry out, observe, perform, and be subject to the same; and in default of such written acceptance and agreement, the permission and grant of location shall be void. Such grant and permission shall likewise be void and deemed revoked unless within six months after the date of the order the posts, conduits and other fixtures shall have been completed and erected, and the electric lines constructed and put in operation thereon, and whenever the operation of the electrical lines upon any location granted shall be discontinued for six months, the grant shall cease and be of no further effect.

After Section 31, insert the following sections, viz.:

Sect. 32. All posts in sidewalks shall be set upon the outer edge thereof and, wherever there are curbstones, placed on the inner edge of the curbstone at the level of the sidewalk. Posts for telegraph, telephone and electric light lines shall be of hard pine, square at the surface of the ground and planed and chamfered.

Sect. 33. All permissions granted by the Board of Aldermen to erect and maintain posts, or to construct conduits or other fixtures for electrical lines, in the public ways, bridges or grounds, may at any time be revoked by the Board of Aldermen, either in whole or in part, and the said board may order the removal of such posts, conduits, fixtures, wires and lines as it deems necessary, and whenever any posts, conduits, fixtures, lines and wires are so ordered to be removed such removal shall be done by and at the expense of the owner, in conformity

with the order, within thirty days after notice, or the Board of Aldermen may cause the removal to be done and the expense thereof to be repaid to the city by the owner.

Sections 32 and 33 of said Chapter, as heretofore numbered, to be re-numbered Sections 34 and 35, respectively.

[*Approved, June* 29, 1893.]

An Ordinance in Amendment of an Ordinance, entitled General Regulations for Streets, Commons, Reservoirs and other Public Places.

Be it Ordained by the City Council of the City of Cambridge, as follows : —

Chapter 44, of the Revised ordinances of 1892, is hereby amended in the following sections, viz.: —

In Section 3, by adding the clause, " and no person shall publicly exhibit any animal in the streets or public places of the city except in accordance with a permit from the superintendent of Streets, or a license from the Board of Aldermen."

In Section 33 by adding the clause, " and no person other than an employe of the city engaged in its work shall pick over or otherwise disturb any refuse material, house dirt or ashes set out in the streets or sidewalks for collection by the city, or deposited by the city on any dumping place, except in accordance with a permit from the Board of Health."

As amended, the several sections before enumerated will read as follows: —

Section 3. No owner or person having the care of any domestic fowls or any goats, sheep, swine, horses, oxen, cows, or other grazing animals, shall permit or suffer the same to go at large, or to graze on any street; and no person shall publicly exhibit any animal in the streets or public places of the city except in accordance with a permit from the Superintendent of Streets or a license from the Board of Aldermen.

Sect. 33. No person shall shake or otherwise clean a carpet on any common or other public grounds; and no person shall commit a nuisance thereon; and no person other than an employe of the city engaged in its public work, shall pick over or

otherwise disturb any refuse material, house dirt or ashes set out in the streets or sidewalks for collection by the city, or deposited by the city on any dumping place, except in accordance with a permit from the Board of Health.

[*Approved*, *June* 30, 1893.]

An Ordinance in Amendment of an Ordinance, entitled "Streets."

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 33, of Chapter 24 of the Revised Ordinances of 1892, is hereby amended by adding the following thereto : —

"And no clothes dryer or clothes line, and no clothes or garments shall be hereafter placed or hung over a sidewalk or within the limits of any street without such permission. All permissions given under this Section shall be in writing, signed by the Superintendent of Streets."

[*Approved*, *June* 30, 1893.]

An Ordinance in Amendment of an Ordinance entitled General Provisions.

Be it ordained by the City Council of the City of Cambridge, as follows : —

Section 16 of Chapter 1 of the Revised Ordinances of 1892 is hereby amended by inserting in the list of departments, under the words "Overseers of the Poor Department," the words "Park Department."

[*Approved*, *July* 11, 1893.]

An Ordinance Establishing a Park Department.

Be it ordained by the City Council of the City of Cambridge, as follows : —

Section 1. The Park department shall be under the charge of a board of three persons, to be styled Park commissioners,

who shall be appointed by the Mayor, subject to the confirmation of the Board of Aldermen, and they shall hold their offices until the expiration of terms of one, two and three years respectively, from the first day of May, 1893. The Mayor shall, subject to like confirmation, before the first day of May in each year after the year 1893, appoint a commissioner to continue in office for the term of three years from said day. No person shall be a commissioner who is at the same time a member of the City Council. Any vacancy occurring in the said board shall be filled for the residue of the term of the commissioner whose place is to be filled, in the same manner in which such commissioner was originally appointed. Such commissioners shall, in addition to the above term, hold office until others are appointed in their respective places.

Sect. 2. The President of the Park Commissioners shall be elected by the board, and shall be one of the persons appointed as provided in the first section of this chapter. The board may make such rules and regulations for its own government, and in relation to its officers, as may be deemed expedient.

Sect. 3. The board so constituted shall have and exercise all the rights, powers and authority given to it and to the City Council by the Legislature, by the three hundred and forty-first chapter of the acts of the year eighteen hundred and ninety-two, and by the three hundred and thirty-seventh chapter of the acts of the year eighteen hundred and ninety-three, and by any acts in addition to either of said acts which may hereafter be enacted, so far as the same can be legally delegated by the city, subject to all the duties, liabilities and restrictions in said last named chapter contained. Said commissioners may in their discretion annually appoint a superintendent, a clerk, and all other subordinate agents and assistants, who shall be removable at their pleasure, and shall fix their compensation subject to the approval of the committee on finance.

Sect. 4. The board, on or before the fifteenth day of December in each year, shall present to the City Council a report containing a statement of the condition of all the parks and lands under its control or supervision, and of other property connected therewith, with an account of all receipts and expenditures, together with any information or suggestions which it may deem

important; and if a superintendent has been appointed it shall at the same time transmit to the City Council his report.

Sect. 5. The board may sell such of the personal property connected with said parks or lands as it may deem expedient, subject to the approval of the Mayor.

Sect. 6. The President of the board shall exercise a general supervision over all said parks and lands, and the materials and property connected therewith, and over all subordinate officers and agents. In case of his absence or disability, his duties may be performed by a president pro tempore, to be chosen by the board.

Sect. 7. No member of the board, and no person appointed to any office or employed by virtue of this chapter or of the acts of the Legislature mentioned in the third section of this chapter, shall be interested, directly or indirectly, in any contract, bargain, sale or agreement, in relation to said parks or lands, or any matter or thing connected therewith, wherein the city is interested; and any, and all contracts, bargains, sales or agreements, made in violation of this section, shall be void as to the city.

Sect. 8. The superintendent shall perform all such services in relation to said parks and lands as may be required of him by the board, and he shall annually, during the first week of December, present to the board a report of the general condition of said parks and lands.

Sect. 9. The board may require the city engineer, either by himself or by his assistants, to perform all work which properly comes within the province and under the direction of the civil engineer, including the making of examinations and surveys, the preparation of statements, plans, profiles, estimates, descriptions, specifications and contracts, and the measuring of the work done by contract and certifying to the results of such measurement.

[*Approved*, *July* 11, 1893.]

An Ordinance in Amendment of an Ordinance, entitled General Regulations for Streets, Commons, Reservoirs, and other Public Places.

Be it ordained by the City Council of the City of Cambridge, as follows:—

Chapter 44, of the Revised Ordinances of 1892, is hereby amended in the following sections, viz.:—

In Section 16, by adding the clause, "and no person shall ride a bicycle or tricycle in any street of this city at a rate exceeding eight miles per hour, except in such places and at such times, and under such restrictions as the board of aldermen shall designate and require; and no person shall ride a bicycle or tricycle in any street of this city unless there is attached to such bicycle or tricycle a bell, whistle or other mechanical device, sufficient, when sounded, to warn travellers of its approach. And said bell, whistle or other mechanical device, shall be sounded when such bicycle or tricycle is within twenty feet of any vehicle, horse or foot passenger, travelling in said street.

In Section 25, by adding the word "ride" after the word "drive," in the first line of said section; also after the word "any," in the same line, the word "bicycle;" also after the word "cart," in the second line, by adding the word "tricycle."

As amended, the before mentioned sections will read as follows:—

Section 16. No person shall coast in a street upon a sled, except by permission of the mayor; and no person shall ride a bicycle or tricycle in any street of this city at a rate exceeding eight miles per hour, except in such places and at such times and under such restrictions as the board of aldermen shall designate and require, and no person shall ride a bicycle or tricycle in any street of this city unless there is attached to such bicycle or tricycle a bell, whistle or other mechanical device, sufficient, when sounded, to warn travellers of its approach. And said bell, whistle or other mechanical device, shall be sounded when such bicycle or tricycle is within twenty feet of any vehicle, horse or foot passenger travelling in said street.

Sect. 25. No person shall drive, ride, wheel, or draw any bicycle, coach, cart, tricycle or other carriage, or permit any horse, cattle, swine or sheep, under his care to go upon any sidewalk, except for the purpose of crossing as nearly as may be at right angles to such sidewalk in order to go into or out of some adjoining enclosure; *provided*, that this section shall not apply to children's carriages or sleds containing children and drawn by

hand; nor shall he otherwise occupy, obstruct, injure or encumber any such sidewalk so as to interfere with the convenient use of the same by travellers.

[*Approved, Sept.* 21, 1893.]

An Ordinance in Relation to Plumbing.

Be it ordained by the City Council of the City of Cambridge, as follows:—

Section 1. No person shall do or carry on the business of plumbing in this city unless he first registers his name and place of business in the office of the inspector of buildings, and notice of any change in the place of business of a registered plumber shall be immediately given to the inspector of buildings.

Sect. 2. No person, firm or corporation not now engaged in or working at the business of plumbing, shall hereafter engage in or work at said business in this city, either as a master or employing plumber or as a journeyman plumber, unless such person, firm or corporation first receives a license therefor, in accordance with the provisions of this ordinance.

Sect. 3. Any person desiring to engage in or work at the business of plumbing, either as a master or employing plumber or as a journeyman plumber in this city, shall apply to the inspector of buildings, and shall, at such time and place as may be designated by the board of examiners hereinafter provided for, to whom such application shall be referred, be examined as to his qualifications for such business. In the case of a firm or corporation, the examination and licensing of any one member of the firm or the manager of the corporation shall satisfy the requirements of this ordinance.

Sect. 4. There shall be in this city a board of examiners of plumbers, consisting of the chairman of the board of health and the inspector of buildings, who shall be members ex-officio of said board, and serve without compensation, and a third member, who shall be a practical plumber. Said third member shall be appointed by the board of health for the term of one year from the first day of May in the year of appointment, and there-

after annually before the first day of June, and shall be allowed a sum not exceeding five dollars for each day of actual service, to be paid from the city treasury.

Sect. 5. Said board of examiners shall as soon as may be after the appointment of said third member, meet and organize by the selection of a chairman, and shall then designate the times and places for the examination of all applicants desiring to engage in or work at the business of plumbing. Said board shall examine said applicants as to their practical knowledge of plumbing, house drainage and plumbing ventilation, and if satisfied of the competency of the applicant, shall so certify to the inspector of buildings. Said inspector shall thereupon issue a license to such applicant, authorizing him to engage in or work at the business of plumbing, either as master or employing plumber, or as a journeyman plumber. The fee for a license for a master or employing plumber shall be two dollars; for a journeyman plumber it shall be fifty cents; said licenses shall be renewed annually upon the payment of a fee of fifty cents. A license issued by a board of health or inspector of buildings having competent jurisdiction in some other locality within the Commonwealth, may be renewed by the inspector of buildings in case the person, firm or corporation to whom the license was issued removes from such jurisdiction and desires to engage in or work at the business of plumbing in this city.

Sect. 6. The inspector of buildings shall appoint one or more inspectors of plumbing, who shall be practical plumbers, and who shall hold office until removed by said inspector for cause which must be shown. The compensation of such inspectors shall be determined by the inspector appointing them, and be paid from the city treasury. Said inspectors shall inspect all plumbing work for which permits are hereafter granted, in process of construction, alteration or repair; and shall report to said inspector of buildings, all violations of any law, ordinance or by-law relating to plumbing work, and also perform such other appropriate duties as may be required.

Sect. 7. No plumbing work shall be done, except in the case of repairs of leaks, without a permit being first issued therefor by the inspector of buildings, and no such permit shall be issued unless and until the person, firm or corporation proposing to do

the work shall file in the office of the inspector of buildings, upon blanks provided for the purpose, a notice and a particular description of the work to be performed.

Sect. 8. No pipes, tanks, faucets, valves, or other fixtures, by and through which waste water or sewage is used and carried, shall be placed in any building in the city except in accordance with plans which shall be approved by the board of health or such person or persons as the board of health shall designate, and before any permit to do the plumbing work described in and by such plans shall be issued, such plans or copies thereof shall be filed in the office of the inspector of buildings, together with a certificate from the board of health or person or persons so designated that such plans have been approved by them or him.

Sect. 9. The owner of every building shall have its sewage conducted into a common sewer whenever there is a common sewer near by in the street adjoining the premises upon which such building stands, and if there is no such sewer, into a proper cesspool. And whenever, in the opinion of the board of health, it may be necessary as a health measure, upon its order, any drain and any connection with a common sewer, and any cesspool shall be reconstructed by such owner at his expense.

Sect. 10. Such portion of house drains as are outside of buildings, and extend more than five feet beyond the foundation walls, shall be constructed of cast iron soil pipe, or of vitrified drain pipe.

Sect. 11. Such portions of house drains as are within buildings, and also such portions as are without, and less than five feet beyond foundation walls, shall be constructed of heavy cast iron pipe.

Sect. 12. Drain and connecting ventilating pipes shall be of sufficient size, and shall be properly secured by irons to walls, laid in trenches to uniform grade, or suspended to floor timbers by strong iron hangers. Every drain pipe shall be supplied with a running trap of size not less than the internal diameter of the drain, placed with an accessible clean-out at or near the point where it leaves the building, and shall have a proper fall. Drain pipes shall be carried above the roof, open and undiminished in size, and to a sufficient height, not less than two feet

above the roof, and not less than five feet above top of any window within fifteen feet. Changes in direction shall be made with curved pipes, and all connections, with horizontal or vertical pipes, shall be made with Y branches. All drain pipes shall be exposed to sight where practicable, within the building, and shall not be exposed to pressure where they pass through walls. Every part of every drain pipe below a cellar floor shall be laid in a brick trench with a concrete base, and shall be accessible through sufficient unattached covers.

Sect. 13. Joints in iron soil pipes, drain and waste pipes, shall be oakum packed, and caulked with molten lead. Joints in lead pipes shall be wiped solder joints. Connections of iron and lead pipes shall be by means of brass caulking nipples, and the lead shall be joined to the brass by wiped joints, and the nipple shall be securely caulked into the iron pipe or fitting.

Sect. 14. The waste pipe of each and every sink, basin, bath tub, urinal, water closet, slop-hopper, and of each set of trays, or other fixtures, shall be furnished with a separate trap, which shall be placed as near as practicable to the fixture that it serves, except as hereinafter provided. One trap shall be permitted to serve for one set of wash trays and a sink, or one bath tub and a wash bowl, *provided* that the distance between said fixtures is not greater than two feet, and the diameter of the trap is not less than four inches. Traps shall be protected from syphonage or air pressure by special cast iron pipes of a size not less than the waste pipes they serve, placed outside or below the trap. Lead air pipes may be used only when they are exposed to view. Air pipes for water closet traps shall be of two-inch bore, if thirty feet or less in length, and of three-inch bore if more than thirty feet in length. Air pipes shall be run as direct as practicable. Two or more air pipes may be connected together with a drain pipe, but in every case of connection with a drain pipe such connection shall be above the upper fixtures of the building.

Sect. 15. No chimney or hot flue or shaft constructed of sheet iron, brick or cement, shall be used as a ventilator for a trap or drain pipe. Vent pipes shall be constructed of the same material, and in accordance with the provisions of the ordinance

governing the construction of drain pipes, and no vent pipe shall be constructed or placed in such manner that it may become trapped or filled by water from condensation or otherwise.

Sect. 16. Each water closet and every line of water closets on the same floor shall be supplied with water from a tank or cistern of a capacity not less than four gallons to each closet. This requirement shall not apply to water closets substituted for privy vaults where they are outside of buildings, but such water closets may receive their supply directly from the main, with such fixtures as may be approved by the inspector of buildings and the water board. No pan-closet shall be permitted, and no sluice vault or water closet constructed of brick, cement or stone.

Sect. 17. Each water closet and urinal shall be locally vented in a hot flue or chimney, where practicable.

Sect. 18. Waste pipes from refrigerators or other receptacles where food is stored shall not be connected with a drain, sewer pipe, soil pipe, or other waste pipe, and shall be run to some place in open sight.

Sect. 19. No steam exhaust pipe shall be connected with a drain or sewer pipe, soil pipe or other waste pipe unless the exhaust pipe shall be provided with a sufficient condenser, and unless the exhaust pipe connects with such drain or sewer pipe, soil pipe, or other waste pipe, at a point between the running trap, required by Section 12, and the sewer or cesspool.

Sect. 20. Each rain water leader connected with soil or drain pipes or a sewer, shall be separately trapped, and any portion which may be within a building, or immediately without the wall, shall be constructed of the same material and in the same manner as other drain pipes. They shall in no event be used to drain other than rain water.

Sect. 21. No cellar bottom or area shall be connected with a public sewer without special permit from the board of health, and then only under such conditions and regulations as said board shall in each particular case prescribe.

Sect. 22. Pipes and other fixtures shall not be covered or concealed from view or used until inspected by an inspector of plumbing and approved by the inspector of buildings. All defects or work otherwise not in accordance with these regula-

tions shall be removed. Notice that the work is sufficiently advanced for inspection shall be sent to the office of the inspector of buildings.

Sect. 23. Before being used or covered up, all work must be tested in the presence of an inspector of plumbing with the water test.

Sect. 24. Whoever violates any provision of this chapter shall be liable to a penalty of not more than fifty dollars for each offence.

Sect. 25. The ordinance passed May 9, 1893, approved by the Mayor, May 10, 1893, entitled "An ordinance in relation to plumbing," is hereby repealed.

[*Approved Nov.* 23, 1893.]

An Ordinance in Amendment of an Ordinance Entitled Truants.

Be it ordained by the City Council of the City of Cambridge, as follows : —

Chapter 34 of the Revised Ordinances of 1892 is hereby amended in Section 1, as follows :

In the third line after the word "places," by inserting the words "of Cambridge ;" also in the seventh line, after the word "to," by striking out the remainder of the section, and inserting in place thereof the following words: "either of the suitable places hereinafter designated, for a term not exceeding two years. The Almshouse of the City of Cambridge, the State Primary School, and the Middlesex County Truant School, are the places provided for the confinement, discipline and instruction of such children."

As amended, this Chapter will read as follows :

CHAPTER 34.

TRUANTS.

Section 1. Any minor, between the ages of seven and fifteen years, convicted of being an habitual truant, or wandering about the streets or public places of Cambridge, having no lawful

occupation or business, not attending school and growing up in ignorance, and such children as persistently violate the reasonable rules and regulations of the common schools, shall be committed to either of the suitable places herein after designated for a term not exceeding two years. The Almshouse of the City of Cambridge, the State Primary School, and the Middlesex County Truant School are the places provided for the confinement, discipline and instruction of such children.

[*Approved*, *Jan.* 12, 1894.]

An Ordinance in Amendment of an Ordinance in Relation to Fire Department.

Be it ordained by the City Council of the City of Cambridge, as follows : —

Section 12, of Chapter 11 of the Revised Ordinances of 1892, is hereby amended as follows: —

In the first line, after the word "company" by inserting the words, "except the company in charge of the Hayes truck so-called."

At the end of the second line, after the word "laddermen," by adding the words: "The company in charge of the Hayes truck, so-called, shall consist of a captain, lieutenant, driver, tillerman and not more than four laddermen."

In the eighth line, after the word "driver," by inserting the words "and tillerman."

In the eleventh line by striking out the word "He" and inserting in place thereof the words "The driver."

In the thirteenth line at the end of the section by adding the words: "The tillerman shall operate the tiller of the Hayes truck, so-called, and shall also perform such other duties as may be assigned to and required of him by the chief engineer."

As amended the section will read as follows: —

Section 12. Each hook and ladder company, except the company in charge of the Hayes truck, so-called, shall consist of a captain, lieutenant, driver and eleven laddermen. The company

n charge of the Hayes truck, so-called, shall consist of a captain, lieutenant, driver, tillerman and not more than four laddermen. The captain and lieutenant shall be nominated by the chief engineer for appointment by the Mayor and Aldermen. The captain shall at all fires have charge and direction of his company. The lieutenant shall assist the captain in the discharge of his duties and also act as clerk of the company. The driver and tillerman shall be constantly employed and at all times be in or about the hook and ladder house, except when unavoidably absent, or excused from duty by the chief engineer. The driver shall drive and have charge of the horses, shall keep the stable neat and clean and perform such other duties as may be required of him by the chief engineer. The tillerman shall operate the tiller of the Hayes truck, so-called, and shall also perform such other duties as may be assigned to and required of him by the chief engineer.

[*Approved, Feb.* 23, 1894.]

An Ordinance in Amendment of an Ordinance in Relation to Plumbing.

Be it ordained by the City Council of the City of Cambridge, as follows :—

Section 12 of an ordinance in relation to plumbing, approved November 23, 1893, is hereby amended in the fifth line by inserting after the word "drain" the words "and ventilating."

As amended the section will read as follows : —

Section 12. Drain and connecting ventilating pipes shall be of sufficient size, and shall be properly secured by irons to walls, laid in trenches to uniform grade, or suspended to floor timbers by strong iron hangers. Every drain pipe shall be supplied with a running trap of size not less than the internal diameter of the drain placed with an accessible clean-out at or near the point where it leaves the building, and shall have a proper fall. Drain and ventilating pipes shall be carried above the roof, open and undiminished in size, and to a sufficient height, not less than two feet above the roof, and not less than five feet

above top of any window within fifteen feet. Changes in direction shall be made with curved pipes, and all connections with horizontal or vertical pipes shall be made with Y branches. All drain pipes shall be exposed to sight where practicable, within the building, and shall not be exposed to pressure where they pass through walls. Every part of every drain pipe below a cellar floor shall be laid in a brick trench with a concrete base, and shall be accessible through sufficient unattached covers.

[*Approved March* 7, 1894.]

An Ordinance in Amendment of an Ordinance Entitled Sinking Fund.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Section 3, of Chapter 23, of the Revised Ordinances of 1892, is hereby amended by adding in the fifth line, after the words "widening of streets" the words "other than for Park and Water purposes;" in the sixth line, after the words "ten years" the following:—"or for such other periods of time as may hereafter be authorized;" in the eighth line, after the words "thirty years" the following: "All other loans for Park and other purposes now and that may hereafter be authorized shall be negotiated for such periods of time as shall not exceed the time or times designated respectively in the act or acts authorizing the same;" by striking out in the seventeenth line thereof the words "outstanding loans," and inserting in their place the words "any such loans and any and all other loans that are now and may hereafter be;" and in the eighteenth line, after the words "two per cent thereof" adding the following: — "and on account of loans that may hereafter be made for forty years, a sum equal to one and one-eighth per cent thereof;" so that said section shall read as follows: —

Section 3. All loans for public buildings and lands therefor, for constructing and improving bridges except for Harvard bridge, for taking, raising and improving low lands, for laying out and paving streets, purchasing public lands and widening streets, other than for Park and Water purposes, shall be nego-

tiated for ten years or for such other periods of time as may hereafter be authorized. All loans for constructing sewers shall be negotiated for not exceeding thirty years. The Harvard bridge loan shall be negotiated for not exceeding thirty years. All other loans for park and other purposes now and that may hereafter be authorized shall be negotiated for such periods of time as shall not exceed the time or times designated respectively in the act or acts authorizing the same. Bonds issued for all loans shall bear upon their face the purpose for which they were issued.

For sinking funds to redeem at maturity such several authorized loans of the city, there shall be annually appropriated and raised by taxation, on account of loans made for ten years, a sum equal to eight and one-half per cent. thereof; on account of loans made for twenty years, a sum equal to three and one-half per cent. thereof; on account of any such loans and any and all other loans that are now and may hereafter be made for thirty years, a sum equal to two per cent. thereof; and on account of loans that may hereafter be made for forty years, a sum equal to one and one-eighth per cent. thereof; and all amounts so raised by taxation shall annually, on or before the thirtieth day of November, be paid by the city treasurer to such board. And whenever any payment is so made before the thirtieth day of November, interest shall be paid thereon, by the commissioners of the sinking funds, from the time of said payment until said thirtieth day of November, at such rates as the committee on finance shall from time to time determine.

[*Approved March* 7, 1894.]

An Ordinance in Amendment of Certain City Ordinances.

Be it ordained by the City Council of the City of Cambridge, as follows:—

The Revised Ordinances of 1892 are hereby amended in the following Chapters, viz.:—

In Chapter 1, Section 9. By striking out the words "Superintendent of streets," in the third line, and inserting in place

thereof the words "park commissioners or the water board.

In Chapter 24, Section 2. By striking out in the third line the word "commons," and in the fourth line the words "and inclosures;" also by inserting in the third line, after the word "bridges," the word "and."

In Chapter 24, Section 3. By striking out the entire section.

An ordinance establishing a Park department, approved July 11, 1893, is hereby amended by inserting in Section 8, second line, after the word "to," the words "the trees in the public streets and," and by adding the following sections, viz.:—

Sect. 10. The Park Commissioners, in addition to the general care and charge of parks and public grounds imposed upon them by the foregoing provisions, shall have the general care and charge of all the other commons, public grounds and enclosures now belonging, and as the same may hereafter belong to the city, and not under the general care of the Water Board.

Sect. 11. The Park Commissioners shall have the care of the trees in the public streets. They shall cause all statutes and ordinances made for the protection of said trees, the commons and other public grounds and enclosures not under the general care and charge of the Water Board, to be strictly enforced, and shall institute legal proceedings against all persons violating such statutes and ordinances.

As amended, the sections of Chapters 1 and 24 of the Revised Ordinances of 1892, before mentioned, and the ordinance establishing a Park Department, will read as follows:—

REVISED ORDINANCES OF 1892.

Chapter 1, Section 9. The words "public grounds" shall include the commons and all public lands placed by the City Council under the charge of the Park Commissioners or the Water Board, and those parts of public places which do not form travelled parts of highways.

Chapter 24, Section 2. The superintendent of streets shall, under the direction and control of the mayor, have the general care and charge of the highways, streets, bridges and public squares belonging to the city, and shall attend to the making,

mending and alteration thereof, and cause the same to be kept in good repair, so as to be safe and convenient for travellers with their horses and carriages at all seasons of the year. He shall place suitable street signs on each street at convenient distances apart. He shall keep the entrances to the catch-basins open, and clear of ice in cold weather, so as to permit the flow of surface water into them. He shall see that the highways, streets and sidewalks are kept in good order, and that all nuisances and obstructions therein are forthwith removed, or give notice thereof to the mayor or chief of police. And in case of the blockade or obstruction of any street, the person causing such blockade or obstruction shall forthwith notify the superintendent of streets and the chief of police thereof.

Section 3 (stricken out).

An Ordinance Establishing a Park Department.

Be it ordained by the City Council of the City of Cambridge, as follows:—

Section 1. The Park department shall be under the charge of a board of three persons, to be styled Park Commissioners, who shall be appointed by the mayor, subject to the confirmation of the board of aldermen, and they shall hold their offices until the expiration of terms of one, two and three years respectively, from the first day of May, 1893. The mayor shall, subject to like confirmation, before the first day of May in each year after the year 1893, appoint a commissioner to continue in office for the term of three years from said day. No person shall be a commissioner who is at the same time a member of the City Council. Any vacancy occurring in the said board shall be filled for the residue of the term of the commissioner whose place is to be filled, in the same manner in which such commissioner was originally appointed. Said commissioners shall, in addition to the above term, hold office until others are appointed in their respective places.

Sect. 2. The President of the Park commissioners shall be elected by the board, and shall be one of the persons appointed as provided in the first section of this chapter. The board may

make such rules and regulations for its own government, and in relation to its officers, as may be deemed expedient.

Sect. 3. The board so constituted shall have and exercise all the rights, powers and authority given to it and to the City Council by the Legislature, by the three hundred and forty-first chapter of the acts of the year eighteen hundred and ninety-two, and by the three hundred and thirty-seventh chapter of the acts of the year eighteen hundred and ninety-three, and by any acts in addition to either of said acts which may hereafter be enacted, so far as the same can be legally delegated by the city, subject to all the duties, liabilities and restrictions in said last named chapter contained. Said commissioners may in their discretion annually appoint a superintendent, a clerk, and all other subordinate agents and assistants, who shall be removed at their pleasure, and fix their compensation subject to the approval of the committee on finance.

Sect. 4. The board, on or before the fifteenth day of December in each year, shall present to the City Council a report containing a statement of the condition of all the parks and lands under its control or supervision, and of other property connected therewith, with an account of all receipts and expenditures, together with any information or suggestions which it may deem important; and if a superintendent has been appointed, it shall at the same time transmit to the City Council his report.

Sect. 5. The board may sell such of the personal property connected with said parks or lands as it may deem expedient, subject to the approval of the mayor.

Sect. 6. The president of the board shall exercise a general supervision over all said parks and lands, and the materials and property connected therewith, and over all subordinate officers and agents. In case of his absence or disability, his duties may be performed by a president pro tempore, to be chosen by the board.

Sect. 7. No member of the board, and no person appointed to any office or employed by virtue of this chapter or of the acts of the Legislature mentioned in the third section of this chapter, shall be interested, directly or indirectly, in any contract, bargain, sale or agreement, in relation to said parks or lands, or any

matter or thing connected therewith, wherein the city is interested; and any and all contracts, bargains, sales or agreements, made in violation of this section, shall be void as to the city.

Sect. 8. The superintendent shall perform all such services in relation to the trees in the public streets and said parks and lands as may be required of him by the board, and he shall annually, during the first week in December, present to the board a report of the general condition of said parks and lands.

Sect. 9. The board may require the City Engineer, either by himself or by his assistants, to perform all work which properly comes within the province and under the direction of a civil engineer, including the making of examinations and surveys, the preparation of statements, plans, profiles, estimates, descriptions, specifications and contracts, and the measuring of the work done by contract and certifying to the results of such measurement.

Sect. 10. The Park Commissioners, in addition to the general care and charge of parks and public grounds imposed upon them by the foregoing provisions, shall have the general care and charge of all the other commons, public grounds and enclosures now belonging, and as the same may hereafter belong to the city, and not under the general care of the Water Board.

Sect. 11. The Park Commissioners shall have the care of the trees in the public streets. They shall cause all statutes and ordinances made for the protection of said trees, the commons and other public grounds and enclosures not under the care and charge of the Water Board, to be strictly enforced, and shall institute legal proceedings against all persons violating such statutes and ordinances.

[*Approved March* 13, 1894.]

An Ordinance in Amendment of an Ordinance Entitled Cemetery.

Be it ordained by the City Council of the City of Cambridge, as follows: —

Chapter 6 of the Revised Ordinances of 1892 is hereby amended by adding at the end thereof a new section, viz.: —

Section 8. Proprietors of lots may, upon forms prescribed

by the Board of Cemetery Commissioners, reconvey said lot or lots to the City of Cambridge and the Board of Cemetery Commissioners may accept the same, for and in behalf of the City of Cambridge, upon certain trusts in said deed of reconveyance to be expressly mentioned. But, in no event, shall any such deed of reconveyance be accepted as aforesaid, unless and until there shall be deposited with and held by the City Treasurer, in accordance with section four of chapter twenty-five of the revised ordinances, a sum sufficient, in the opinion of the Board of Cemetery Commissioners, to provide for the perpetual preservation and care of such lot or lots and their several respective appurtenances, including the care of the grass, resodding, erecting, placing, keeping in repair, and the renewal of any tomb, curb, monument, headstone, and fence now or hereafter to be placed on said lot or lots. Any proprietor, so reconveying any lot or lots as aforesaid to the city, may in said deed reserve to himself and to such as may be beneficiaries thereunder the right of admission and such supervision as to the Board of Cemetery Commissioners may seem proper, and as may not be inconsistent with the rights which have vested in said City of Cambridge.

[*Approved March* 29, 1894.]

An Ordinance Establishing the Salaries of Assistant Enginemen of Steam Fire Engines and the Tillerman of the Hayes Truck.

Be it ordained by the City Council of the City of Cambridge, as follows:—

The salaries of Assistant Enginemen of Steam Fire Engines and the Tillerman of the Hayes Truck shall be at the following rates, viz.: —

For first twelve months of service	$ 820 00
For second twelve months of service	920 00
For third twelve months of service	1020 00

[*Approved March* 28, 1894.]

An Ordinance in Amendment of an Ordinance in Relation to Water Works.

Be it Ordained by the City Council of the City of Cambridge as follows:—

Chapter 26 of the Revised Ordinances of 1892 is hereby amended by striking out Section 24 and inserting in place thereof the following: —

Section 24. The following rates shall be charged annually for the use of the water, namely:—

DWELLING-HOUSES.

	Per Year.
Occupied by one family, for the first faucet	$4 00
For each additional faucet, to be used by the same family	2 00
Each wash basin	2 00
Each set wash-tub, with faucet	2 00
When a house is occupied by more than one family,—one faucet only being used by all, for each family	3 00
When a house is occupied by more than one family, the highest rates will be charged for each family having the water carried into their part of the house.	
For the first bath-tub	4 00
When used by more than one family, for each family	3 00
For each additional bath-tub	3 00
For the first water-closet (self-regulating)	3 00
When used by more than one family, for each family	2 50
For each additional water closet (self-regulating)	2 00
For each water closet, not self-regulating	10 00
When used by more than one family, for each family	8 00
Each slop closet	3 00
When two faucets are used, one for hot and one for cold water, both emptying into one vessel, but one charge will be made for both, and the same rule applies to boarding-houses.	
Provided, That in no case shall the charge for the use of water by a private family, exclusive of water closet, not self-regulating, hose and stable, be more than	15 00
And including stable for not more than four animals, more than	22 00
And including use of hose for stable for not more than four animals, and for garden not exceeding five thousand feet	27 00

APARTMENT HOUSES OR FAMILY HOTELS.

For the use of water in apartment houses or family hotels which are arranged in suites of rooms for different families, the charge to each tenement, exclusive of water closet not self-closing, shall not exceed $14.00.

[Apartment houses or family hotels, so called, shall be taken to mean and include dwellings constructed especially for and occupied by three or more families, each tenement being arranged in flats or suites of rooms connected, and having the conveniences of a distinct house, without regard to the location of the water fixtures. All other dwellings occupied by one or more families shall be classed under the head of dwelling-houses.]

BOARDING HOUSES.

	Per Year.
For the first faucet	$9 00
Each additional faucet	3 00
For the first water closet (self regulating)	9 00
Each additional water closet (self regulating)	3 00
Eor each water closet, not self regulating	15 00
Each slop closet	4 00
Bath tub	9 00

STORES, &C.

For each tenement occupied as a store, warehouse or office	$3 00
Where two or more such tenements are supplied from the same faucet, each	2 50
For markets, saloons, workshops, or for purposes not included in any other classification, and not requiring more than an ordinary supply of water taken from one faucet, from	$5 00 to 25 00
For the first self regulating water closet or urinal used by the occupants of one tenement only	3 00
(Explanation: When a self regulating water closet and urinal are in one room, but one charge for each tenant shall be made for both fixtures.)	
When used by occupant of more than one tenement, for each	2 50
For water closet, not self regulating, for single tenement	10 00
Each slop closet	3 00
For water closet, not self regulating, used by occupant of more than one tenement, for each	6 00

For each additional fixture, one-half of the above charges shall be added.

PRIVATE STABLES.

For first horse,	$4 00
Each additional horse,	2 00
Each cow,	2 00

LIVERY, CLUB AND BOARDING STABLES.

For not exceeding five horses, the same as private stables.	
Each additional horse,	$2 00

CAR AND OMNIBUS STABLES.

For not exceeding five horses, the same as private stables.	
Each additional horse,	$2 00

TRUCK AND CART STABLES.

For each horse, if two or more, ... $2 00
The above includes water for washing carriages, omnibuses and cars, without hose.
No stable less than, ... 4 00
Where hose is used in any stable, an addition will be made to the above charges, as follows:—
For the first horse, ... 5 00
For each additional horse, ... 50

HOSE.

For washing windows and other similar uses, including watering gardens of less than 5000 feet, ... $ 5 00
For above purposes and for private stable, ... 10 00
For other cases arrangements can be made with the Water Board.

HOTELS.

For each bed for boarders and lodgers, ... $3 50
Or special arrangements may be made with the Water Board.

BATHS.

For public bath, and for each bath in any hotel, ... $10 00
Water closets in public bath houses, ... 10 00

STEAM-ENGINES.

For each engine, working not over twelve hours a day, for each horse-power, ... $6 00

The Board shall have power to ascertain by meter the quantity used in any case, and a meter shall be applied whenever in the judgment of the Board it is expedient. The charge for metered water other than for manufacturing purposes shall be at the rate of two cents for each one hundred gallons. (The charge for metered water for manufacturing purposes shall be at the rate of one and one-half cents for each one hundred gallons.) When the water used by any one taker shall amount to more than five million gallons in any one year, commencing with the first day of July, then the charge shall be at the rate of one cent for each one hundred gallons of the excess over that quantity. In no case, however, shall the minimum charge for any metered premises be less than ten dollars per annum.

All bills for water furnished by meters shall be payable quarterly at the office of the City Treasurer; and if the same be not paid within twenty days after the end of the quarter, the regis-

trar is instructed to cut off the supply, after sending a special notice that the water will be cut off for non-payment.

When water is required for purposes which are not specified in the foregoing tariff, the rate shall be fixed by the Board.

The Board shall have power to prevent the erection of yard hydrants, and water shall not be supplied to any water closets unless such water closets are constructed to conform to the Plumbing Ordinances.

This Ordinance shall take effect May 1st, 1894.

[*Approved*, *March* 29, 1894.]

An Ordinance in Relation to the Salary of the Sealer of Weights and Measures.

Be it ordained by the City Council of the City of Cambridge, as follows :—

On and after the first day of March, 1894, the salary of the Sealer of Weights and Measures shall be at the rate of nine hundred dollars a year.

[*Approved*, *March* 28, 1894.]

MAYORS OF THE CITY OF CAMBRIDGE.

From 1846 to 1894.

James D. Green . . .	from May,	1846, to April,	1848
Sidney Willard . . .	" April,	1848, to April,	1851
George Stevens . . .	" April,	1851, to April,	1853
James D. Green . . .	" April,	1853, to April,	1854
*Abraham Edwards . .	" April,	1854, to January,	1855
Zebina L. Raymond . .	" January,	1855, to January,	1856
John Sargent	" January,	1856, to January,	1860
†James D. Green . . .	" January,	1860, to July, 24,	1861
‡Chas. Theo. Russell .	" July 31,	1861, to January,	1863
George C. Richardson .	" January,	1863, to January,	1864
Zebina L. Raymond . .	" January,	1864, to January,	1865
J. Warren Merrill . .	" January,	1865, to January,	1867
Ezra Parmenter . . .	" January,	1867, to January,	1868
Chas. H. Saunders . .	" January,	1868, to January,	1870
Hamlin R. Harding . .	" January,	1870, to January,	1872
Henry O. Houghton .	" January,	1872, to January,	1873
Isaac Bradford . . .	" January,	1873, to January,	1877
Frank A. Allen . . .	" January,	1877, to January,	1878
Samuel L. Montague .	" January,	1878, to January,	1880
James M. W. Hall . .	" January,	1880, to January,	1881
James A. Fox	" January,	1881, to January,	1885
William E. Russell . .	" January,	1885, to January,	1889
Henry H. Gilmore . .	" January,	1889, to January,	1891
Alpheus B. Alger . .	" January,	1891, to January,	1893
William A. Bancroft .	" January,	1893. Now in office.	

*Municipal year changed. †Resigned. ‡First elected by the City Council.

GOVERNMENT OF THE CITY OF CAMBRIDGE.

1894.

Mayor.

HON. WILLIAM A. BANCROFT.

Board of Aldermen.

JOHN G. THOROGOOD, *President.*

Ward One.

EDWARD B. JAMES. MARSHALL N. STEARNS.

RUSSELL BRADFORD.

Ward Two.

WELLINGTON FILLMORE. ANDREW J. RADY.

PETER F. ROURKE.

Ward Three.

JOHN H. PONCE. PETER P. BLEILER.

Ward Four.

JOHN G. THOROGOOD. CHARLES W. CHENEY.

Ward Five.

WALTER H. LERNED.

Clerk.

WALTER W. PIKE.

Common Council.

CHARLES M. CONANT, *President.*

Ward One.

ALFRED B. PARKER.
WILLIAM B. REID.
FREDERICK W. REEVES.
HIRAM W. WADSWORTH.

Ward Two.

CHARLES M. CONANT.
J. WALTER FARRELL.
WILLIAM R. DAVIS.
JOHN L. ODIORNE.
CHARLES H. TITUS.

Ward Three.

WILLIAM F. CASEY.
CORNELIUS MINIHAN.
WILLIAM T. MCGUIRE.
JOHN F. POWERS.

Ward Four.

GEORGE ALLEN.
CHARLES P. KEITH.
CLARENCE H. DOUGLASS.
ARTHUR M. STEWART.
GEORGE B. WHITMORE.

Ward Five.

THOMAS F. DOLAN.
RANDOLPH C. SURBRIDGE.

Clerk.

EDWARD J. BRANDON.

Page.

CHARLES M. JONES.

City Clerk.

WALTER W. PIKE.

Assistant City Clerk.

EDWARD J. BRANDON.

City Messenger.

FRANCIS L. PRATT.

COMMITTEES OF THE CITY COUNCIL.

Joint Standing Committees.

Accounts. Aldermen Rady and Bleiler. Councilmen Farrell, Surbridge and Wadsworth.

Almshouse. Aldermen Cheney and Rady. Councilmen Reeves, Allen and Minihan.

Assessors. Alderman Stearns. Councilmen Stewart and Minihan.

City Engineering. Aldermen Rourke and Bleiler. Councilmen Dolan, Davis and McGuire.

Claims. President Thorogood, Aldermen James, Rady and Lerned. President Conant, Councilmen Allen, Reid, Surbridge, Farrell and Casey.

Electric Wires. Aldermen Cheney and Bleiler. Councilmen Powers, Titus and Douglass.

Finance. President Thorogood, Aldermen Ponce, Rady and Bradford. President Conant, Councilmen Stewart, Dolan, Parker, Odiorne and McGuire.

Fire Department. Aldermen James and Fillmore. Councilmen Douglass, Reid and Titus.

Health. Aldermen Stearns and Rourke. Councilmen Stewart, Powers and Davis.

Lamps. Aldermen Cheney and Bleiler. Councilmen Whitmore, Casey and Wadsworth.

Ordinances. Aldermen Rady and Bradford. Councilmen Surbridge, Wadsworth and Titus.

Printing. Aldermen Bleiler and James. Councilmen Reid, Allen and Whitmore.

Public Instruction. Aldermen Bradford and Ponce. Councilmen Parker, McGuire and Keith.

Public Property. Aldermen Fillmore and Stearns. Councilmen Keith, Odiorne and Powers.

Roads and Bridges. Aldermen Lerned and Rourke. Councilmen Reeves, Davis and Minihan.

Rules and Orders. Aldermen Bradford and James. Councilmen Keith, Casey and Farrell.

Water Supply. Aldermen Lerned and Stearns. Councilmen Dolan, Keith and Reeves.

Legislative Matters. President Thorogood, Aldermen Ponce and Bradford; President Conant, Councilmen, Douglass, Parker and Surbridge.

Standing Committees of the Board of Aldermen.

Bonds. Aldermen Cheney, Rady and Stearns.

Claims. President Thorogood, Aldermen Rady, Lerned and James.

Fire Department. Aldermen James, Bleiler and Fillmore.

Health. Aldermen Stearns, Rourke and Ponce.

Licenses. Aldermen Fillmore, Stearns and Cheney.

Police. Aldermen Fillmore, James and President Thorogood.

Roads and Bridges. Aldermen Lerned, Rourke and Fillmore.

Sewers. Aldermen Ponce, Cheney and Lerned.

Street Railways. Aldermen Lerned, Rourke and Fillmore.

Rules and Orders. Aldermen Bradford, Ponce and Bleiler.

Elections and Returns. Aldermen Cheney, Rady and Bradford.

Soldiers' Aid. Aldermen James, Rourke, Bleiler, Cheney and Lerned.

Committees of the Common Council.

Bills in the Second Reading. Councilmen Stewart, Reeves and Whitmore.

Elections and Returns. Councilmen Casey, Douglass and Odiorne.

Enrolled Ordinances. Councilmen Allen, Farrell and Dolan.

Clerk of Committees

John McDuffie.

City Auditor.

Harry T. Upham.

City Treasurer.

William W. Dallinger.

Board of Health.

E. Edwin Spencer, M. D., *City Physician, ex officio.*

(Term three years. From 1892.)

William H. Whitney (appointed 1893).
Edmund M. Parker (appointed 1894).

(Term, two years.)

Clerk.

James B. Soper.

Health Officer.

Edwin Farnham, M. D.

Surveyor of Highways.

His Honor, the Mayor.

Assessors.

Joseph Wittemore (term expires 1894).
Andrew J. Green (term expires 1895).
Joshua G. Gooch (term expires 1896).

(Term, three years.)

Assistant Assessors.

Warren Ivers.
John M. Davis.
Daniel B. Shaughnessy.
George D. Wellington.
Daniel J. Hayes.

School Committee.

William A. Bancroft, Mayor, *ex officio*, *Chairman*.

WARD I.

William T. Piper (term expires 1894).
Ellen A. Goodwin (term expires 1895).
Frank W. Taussig (term expires 1896).

WARD II.

Phebe M. Kendall (term expires 1894).
Alphonso E. White (term expires 1895).
Robert O. Fuller (term expires 1896).

WARD III.

William H. Clancy (term expires 1894).
Anne Clark Stewart (term expires 1895).
Edward B. Malley (term expires 1896).

WARD IV.

Charles F. Wyman (term expires 1894).
William A. Munroe (term expires 1895).
Mary E. Mitchell (term expires 1896).

WARD V.

Caroline P. Chase (term expires 1894).
Frederic W. Taylor (term expires 1895).
George P. Johnson (term expires 1896).

(Term, three years.)

Secretary.

Sanford B. Hubbard.

Superintendent of Schools.

Francis Cogswell.

Overseers of the Poor.

Charles E. Vaughan, *Chairman.*

William W. Burrage (term expires 1894).
Charles Bullock (term expires 1895).
Charles Walker (term expires 1896).
Stephen Anderson (term expires 1897).
Charles E. Vaughan (term expires 1898).
Term, five years.

Secretary.
David P. Muzzey.

Visitor.
Vespasian Danforth.

Warden of the Almshouse.
Martin L. Eldridge.

Assistant City Physician.
Lewis L. Bryant, M. D.
[Elected in April by the Overseers of the Poor, subject to the approval of the Board of Aldermen.]

Cambridge Cemetery.

Commissioners.

George S. Saunders, *Chairman.*

Henry A. Doherty (term expires 1895).
Nathan C. Lombard (term expires 1895).
George S. Saunders (term expires 1896).
Herbert A. Chase (term expires 1896).
William A. Bertsch (term expires 1897).
Charles O. Welch (term expires 1897).
(Term, three years.)

Superintendent.
Charles S. Childs.

Trustees of the Cambridge Public Library.

Albert M. Barnes, *President.*
William T. Piper, *of School Committee.*

Citizens at Large.

Samuel L. Montague (term expires 1895).
Thomas W. Higginson (term expires 1895).
Jabez Fox (term expires 1896).
Albert M. Barnes (term expires 1896).
Augustine J. Daly (term expires 1897).
Alvin F. Sortwell (term expires 1897).
(Term, three years.)

Librarian.

Almira L. Hayward.

Cambridge Water Board.

John F. O'Brien (term expires 1894).
George H. Howard (term expires 1895).
James M. W. Hall, *President* (term expires 1896).
Stillman F. Kelley, (term expires 1897).
E. Burt Phillips (term expires 1898).
(Term, five years.)

Clerk.

Walter H. Harding.

Superintendent of Water Works.

Hiram Nevons.

Pumping Engineer.

Edwin C. Brooks.

Water Registrar.

Walter H. Harding.

Park Commissioners.

Geo. Howland Cox, *Secretary*, (term expires 1895).
Henry D. Yerxa, *President*, (term expires 1896).
Rev. John O'Brien, (term expires 1897).
(Term, three years.)

Trustees of Sinking Fund of Water Loan.

The Mayor, City Treasurer, and President of the Common Council, *ex-officiis.*

Commissioners on Sinking Funds of the City.

Henry O. Houghton (term expires 1894).
Andrew J. Lovell (term expires 1894).
Charles H. Saunders (term expires 1895).
Frank A. Allen (term expires 1895).
John C. Bullard (term expires 1896).
George H. Howard (term expires 1896).

(Term, three years).

Trustees of the Sanders Temperance Fund.

The Mayor, the President of the Board of Aldermen and the President of the Common Council, *ex officiis*.

Trustees of the Bridge Charitable Fund.

The Mayor, the President of the Board of Aldermen and the President of the Common Council, *ex officiis*.

Trustees of the Dowse Institute.

The Mayor, and the President of the Common Council, *ex officiis*.
William W. Wellington. Willard A. Bullard.
Frank A. Allen.

Senators in General Court.

William B. Durant.

Third Middlesex District, Wards 1, 2, 4, 5.

John F. Fitzgerald.

Third Suffolk District, Ward 3.

Representatives in General Court.

John E. Parry. John T. Shea.
James J. Myers. William M. Townsend.
Frederick W. Dallinger. Warren F. Spaulding.
Daniel H. Coakley.

Registrars of Voters.

Isaac Bradford, *Chairman* (term expires May 1, 1894).
James Cox (term expires May 1, 1895).
William J. Breen (term expires May 1, 1896).
Frank H. Teele, *Clerk* (term expires May 1, 1897).

One appointed annually, in March or April, to hold office four years.

Third District Court of Eastern Middlesex.

Standing Justice.

Charles Almy.

Special Justices.

Samuel W. McDaniel. Augustine J. Daly.

Clerk.

Emerson W. Law.

Probation Officer.

Frederick W. Hagar.

City Solicitor.

Gilbert A. A. Pevey.

City Engineer.

Lewis M. Hastings.

Superintendent of Sewers.

Theodore L. Pike.

Inspector of Wires.

Charles H. Morse.

Commissioner on West Boston, Craigie's, Prison Point and Harvard Bridges.

William J. Marvin.

Harbor Master.

William J. Marvin.

Superintendent of Streets.

Edgar H. Reed.

Superintendent of Public Buildings.

Benjamin H. Steele.

Superintendent of Lamps.

Charles H. Morse.

Board of Engineers.

Chief Engineer.

Thomas J. Casey.

Call District Chiefs.

Nathaniel W. Bunker. Charles W. Brackett.

William B. Cade.

Police Department.

Chief of Police.

Lothrop J. Cloyes.

Captains of Police.

District No. 1.	District No. 2.	District No. 3.
Thomas H. Lucy.	John F. Murray.	Mark J. Folsom.

Inspector.

James E. Murray.

Court Officer.

Sergt. William F. Batchelder.

Sergeants of Police.

District No. 1.	District No. 2.	District No. 3.
Callahan, Daniel.	Alexander, James S.	Corcoran, Dennis.
Pullen, Fred. B.	Pike, Charles L.	Mullett, William.
	Sproul, Andrew.	

Patrolmen.

(With the numbers of their badges.)

District No. 1.

No.		No.	
7	Barrington, George T.	44	Marston, Charles C.
28	Belcher, Edward F.	55	Maloy, John P.
53	Blen, Elbridge S.	10	McBride, John J.
69	Brennan, Michael J.	16	McCabe, Edward J.
29	Conry, Michael J.	1	McCrehan, John E.
20	Corcoran, Timothy.	26	McElroy, James L.
56	Coulter, John.	57	McNamee, Hugh J.
25	Comerford, Edward J.	18	McNulty, James E.
40	Doyle, Patrick.	76	Mullen, William N.
8	Furbush, Joseph H.	75	Mulvaney, Simon J.
2	Graves, William H.	62	Roper, Bernard J.
49	Hiscock, Simon D.	6	Shackford, Leonard.
47	Hixon, Robert T.	21	Smyth, George.
22	Hooper, Moses W.	42	Wells, John H.
58	Holt, James H. H.	48	Winslow, John E.
17	Jewett, Dexter.	3	White, Orrin B.
35	Ladd, Fred L.	78	Rowe, Wm. H.

District No. 2.

No.		No.	
51	Aylward, Richard H.	14	Higgins, Benj. F.
36	Butcher, William A.	33	Howe, William H. H.
71	Counihan, Daniel F.	11	Jones, Henry C.
34	Culhane, Michael.	23	Law, Frederick W.
68	Deehan, John W.	27	McCann, Charles J.
40	Dynan, Thomas F.	72	McCaffery, Bernard.
38	Ginty, Michael A.	30	McCarthy, Jeremiah.
9	Hall, James P.	13	McKeen, Benjamin.

15 McKeown, William F.
45 Murray, Patrick F.
4 Neilon, Michael.
52 Priest, Charles W.
59 Real, Thomas J.
70 Robinson, Fred A.
31 Robertson, William H.
24 Stevens, David A.
61 Sullivan, Cornelius.
54 Wiley, John.
43 Mullen, Robert E.
82 Hackett, Mortimer M.
81 Gordon, Herbert.
80 Welch, Edward J.
79 Richards, Byron A.
19 Scully, Benj. F.
67 Leahey, Dennis F.

District No. 3.

No.
5 Apel, Frederick.
66 Coghlin, Francis J.
74 Forrestall, James B.
41 Griffith, John J.
12 Hartnett, Timothy J.
77 Hezlitt, John A.
37 Hurley, Patrick F.
32 Keaney, James M.
No.
60 Lamb, Michael F.
39 McCorrey, Joseph F.
64 McMennimen, Wm. H.
73 Rowe, Thomas P.
46 Scobey, Frank W.
65 Shaughnessy, John E.
63 Skelley, John W.

Drivers of Patrol Wagons.

John Cook.
John J. McCauley.
John Sullivan.
John Coffey.

Matrons.

Mrs. E. S. Hains.
Mrs. A. M. Stearns.

Policemen, without pay (within the civil service).

William H. Aberle.
Horace A. Allyn.
John A. Austin.
Oliver W. Balcom.
Richard Balmer.
John A. Bartlett.
Edmund R. Blinn.
Charles F. Bowman.
Charles W. Brackett.
John B. Brady.
James T. Brassil.
Timothy J. Breen.
James K. Bresnan.
James Burke.
William Burgess.
Samuel Busnach.
William B. Cade.
William H. Cairns.
Thomas J. Casey.
William H. Carroll.
James Carter.
Moses M. Child.
Charles S. Childs.
Ambrose H. Clark.

Policemen, without pay (within the civil service).—Continued.

James Grant.
Henry L. Hale.
John L. Harrington.
Thomas L. Harrington.
John A. Hezlitt.
Thomas M. Howard.
J. Lewis Howe.
William Hunnewell.
Samuel F. Hunt.
Thomas W. Jones.
Frank W. Keaney.
John Kelleher.
Conrad D. Kinnear.
Joseph P. Kline.
William B. Lehmkuhl.
James W. Lovering.
James H. Lyons.
Francis M. Mason.
Jeremiah S. McCabe.
John H. McCarthy.
John B. McGovern.
John R. McPeake.
Noah M. Cofran.
Daniel A. Buckley.
Ferdinand N. Buffum.
Nathaniel W. Bunker.
John Collier.
John A. Condon.
Patrick Corcoran.
Vespasian Danforth.
Abner R. Davis.
Frank E. Dennison.
Daniel K. Dinsmore.
Patrick F. Dunlea.
Martin L. Eldridge.
Luther F. Fleming.
Thomas Flynn.
Oliver G. Fosdick.
William Foster.
Edward J. Forbes.
James H. Furfey.
James J. Garvin.
Charles A. Gay.
Eli L. Goodrow.
George W. Montgomery.
Thomas Montgomery.
Dennis Murphy.
Michael Murphy.
Nathaniel M. Neal.
Augustus W. Nelson.
James H. Newman.
Hiram Nevons.
Francis A. Osborn.
George A. Parmenter.
Francis L. Pratt.
Charles L. Russell.
Charles M. Sanborn.
Benjamin C. Scully.
John F. Sharkey.
John T. Shea.
Andrew G. Smith.
Edward Smith.
Gideon Smith.
David H. Walsh.
Clarence H. Whiting.
George Wood.

Policemen Without Pay.

Antonio Francis.
Rolly Stovvoll.
Harry Ellis.
Edgar L. Wentworth.
Charles B. Gordon.
Robert T. B. Pierce.

Peter Shea.
Patrick Cronin.
Alex. F. Shepherd.
Joseph F. Skelton.
Alton J. Rice.
Frank C. Hatch.
William E. Potter.
George P. Knowlton.
Rufus S. Downe.
John Clark.
John A. O'Connor.
Patrick Murphy.
Charles O. Dam.
Rudolph Erhardt.
William L. Lyon.
James C. Scorgie.
James F. Dunn.
Charles W. Dailey.
Frederick Clover.
William Murphy.
Patrick Clark.
Thomas H. McCourt.
Gideon H. Cloyes.
Edwin C. Brooks.
Frank Frates.
Kenney C. Lowell.
Robert Alexander.
Wesley Wile.
Armon A. Kiner.
James A. Saunders.
William Marsman.
John M. Day.
Harlan Z. Page.
William McLain.
George Eastman.
William H. Churchill.
Thomas Elworth.
John A. Solari.
Elisha B. Caution.
Robert A. Parry.
Melvin W. Perry.
Edward E. Coye.
Dennis J. Farrell.
Richard W. Sutton.
Horace D. Litchfield.
James E. Ferguson.
John I. Carroll.
James Main.
Herbert E. Lombard.
Robert Roger.
John O'Brien.
James Doherty.
Walter J. Anderson.
Arthur F. Miller.
Jeremiah J. Long.
Charles E. W. Lawson.
William J. Collins.
Charles H. Morse.
William C. Pierce.
George A. Patten.
John F. Donnelly.
William F. Peck.
John Reardon.
John T. Cook.
Charles I. Marston.
Louis Miller.
John Coffey.
John McCauley.
John H. Hollenbeck.
William H. Cutler.
John J. Shea.
Albert F. Roberts.
Irving H. Henderson.
John E. Moran.
Norman McConnell.
John Sullivan.
David Garvin.
Frank W. Marshall.

William E. Eyles.
John Dillon.
Frank Russell.
B. Frank Robinson.
Hartwell S. Pettes.
John L. Kirby.
Charles E. Bramhall.
Angus S. McDonald.
Samuel H. Swain.
James A. Gorman.
Thomas C. Butler.
Samuel E. Tasco.
Frederick McKenzie.
John Mahoney.
Eliakim W. Hill.
Geo. E. Goodwin.
Felix Desnoit.
Ralph R. Rice.
Arthur Schufeldt.
John Taylor.
Edward F. Chase.
William A. Ford.
Frederick M. Ellis,
Edward W. White.
Charles F. Aberle.

Keeper of Lock-ups.

Lothrop J. Cloyes.

Truant Officers.

Moses M. Child.
Francis M. Mason.
John Collier.
John Carmichael.

Constables.

George T. Barrington.
William F. Batchelder.
Lothrop J. Cloyes.
John R. Fairbairn.
Arthur M. Stewart.
Mark J. Folsom.
Joseph Fox.
Appleton Hubbard.
John F. Murray.
Daniel B. Nash.
John W. Skelley.
Vespasian Danforth.
Thomas H. Lucy.
P. Allen Lindsay.
Warren Ivers.
John M. Davis.
Frank E. Shaw.
William A. Ford.
Edward F. Chase.
Edward M. Williams.
Thomas C. Scottron.
James E. Murray.
Julius M. Nazro.
John J. Ahern.
John Loughrey.
Richard R. Richardson.
James E. Lennon.
Cyril Wright.

Undertakers.

John W. Coveney.
David F. Corcoran.
Thomas Devens.
Arthur S. Fudge.
David Fudge.
Samuel F. Hunt.
George H. Kelly.
Joseph J. Kelly.
Gustavus King.
Horace D. Litchfield.
Judson Litchfield.
John J. Loan.
C. Henry Lockhart.
Abiel E. Long.
Alexander Marcille.
James F. Mullen.
John Ross.
William Ross.
George F. Ricker.
Ralph Smith.
James J. Shea.
John T. Shea.
Benjamin F. Wyeth.
Henry A. Wyeth.
William A. Taylor.

Auctioneers.

John J. Ahern.
Daniel A. Buckley.
Watson G. Cutter.
John R. Fairbairn.
Edmund E. Sanborn.
Daniel J. Hayes.
Stephen H. Harrington.
P. Allen Lindsey.
Humphrey L. Snow.
Francis Traynor.
Leander M. Hannum.
Max Frankenstein.
William R. Ellis.
William H. Adsit.
Charles L. Phillips.
Thomas C. Scottron.
James E. Lennon.
Cyril Wright.
Norman J. Campbell.
John Mahady.

Fence Viewers.

Lewis M. Hastings. Colin Chisholm. Benjamin H. Steele.

Field Drivers.

James S. Alexander.
Frederick Apel.
Richard H. Aylward.
George T. Barrington.
William F. Batchelder.
Edward F. Belcher.

Elbridge S. Blen.
Michael J. Brennan.
William A. Butcher.
Daniel Callahan.
Francis J. Coghlan.
Edward J. Comerford.
Michael J. Conry.
Dennis Corcoran.
Timothy Corcoran.
John Coulter.
Daniel F. Counihan.
Michael Culhane.
William H. H. Howe.
Patrick J. Hurley.
Dexter Jewett.
Henry C. Jones.
Edward Joyce.
James M. Keaney.
Frederick L. Ladd.
Michael F. Lamb.
Frederick W. Law.
John P. Maloy.
Charles C. Marston.
John J. McBride.
Edward J. McCabe.
Barnard McCaffrey
Charles J. McCann.
Jeremiah McCarthy.
Joseph F. McCorry.
John E. McCrehan.
James McElroy.
Benjamin McKeen.
William F. McKeown.
William H. McMenimen.
Hugh J. McNamee.
James E. McNulty.
Robert E. Mullen.
William N. Mullins.
William Mullett.
Simon J. Mulvaney.
John W. Deehan.
Patrick Doyle.
Thomas E. Dynan.
James B. Forristall.
Joseph H. Furbush.
Herbert N. Gordon.
William H. Graves.
Michael A. Ginty.
John J. Griffith.
Mortimer M. Hackett.
James P. Hall.
Timothy J. Hartnett.
John A. Hezlett.
Benjamin F. Higginson.
Simon D. Hiscock.
Robert T. Hixon.
James H. H. Holt.
Moses W. Hooper.
James E. Murray.
Patrick F. Murray.
Michael Neilon.
Charles L. Pike.
Frederick B. Pullen.
Charles W. Priest.
Thomas J. Real.
Byron A. Richards.
William H. Robertson.
Frederick W. Robinson.
Bernard J. Roper.
William H. Rowe.
Thomas P. Rowe.
Frank W. Scobey.
Leonard Shackford.
John E. Shaughnessy.
John W. Skelley.
George Smyth.
Andrew Sproul.
David A. Stevens.

Cornelius Sullivan.
Thomas F. Sullivan.
Edward J. Welch.
John H. Wells.
Orrin B. White.
John Wiley.
John E. Winslow.

Measurers of Wood and Bark.

Herbert T. Lawrence.
Robert A. Parry.
Henry B. Sellon.
George Stephens.

Pound-Keeper.

Arthur F. Miller.

Committee for the Preservation of Fish.

Lewis M. Hastings.
Theodore L. Pike.
Hiram Nevons.

Hay Weighers.

Thomas Gurnham.
Henry B. Sellon.
Timothy Sullivan.

Coal Weighers.

Frank E. Bailey.
Hiram W. Brooks.
Silas E. Buck.
Edward E. Coye.
Walter F. Grieves.
Fred A. Humiston.
Herbert T. Lawrence.
Charles H. Lealand.
Thomas H. Matthews.
John Moynahan.
John E. A. Mulliken.
Amos Pettingill.
Frank H. Tyler.
Alfred H. Wellington.
Ernest H. Wellington.

Inspectors of Junk Shops, Pawnbrokers' Shops and Second-hand Clothing Stores and Dealers.

Mark J. Folsom.
John F. Murray.
Thomas H. Lucy.
James E. Murray.

Sealer of Weights and Measures.

Albert F. Roberts.

Weighers.

Leonard R. Bacon.
Edward J. Carroll.
Isaac A. Chandler.
James W. Coleman.
William L. Ducey.
Arthur F. Miller.
Alexander Wight.
John Guiney.
Charles F. Hittinger.
Nathan H. Holbrook.
Henry Hooker.
William Maloney.
Frank H. Tyler.
Melvin McFarland.

Inspector of Milk.

Frank A. Dunbar.

Inspector of Vinegar.

Frank A. Dunbar.

Inspector of Provisions and Animals Intended for Slaughter, and Kept for the Production of Milk.

Charles E. Hadcock.

Person to Receive Information of Damages Done by Dogs.
(Ch. 454, Acts of 1889.)

Lothrop J. Cloyes.

Persons to Cause to be Properly Interred the Bodies of Soldiers and Sailors.

Cornelius G. H. Bennink.
John W. Coveney.
William H. Eveleth.
Joseph J. Kelley.

Surveyors of Mechanics' Work.

Charles A. Mason. John S. Pollard.

Measurer and Surveyor.

Henry L. Hale.

Inspector of Charcoal Baskets.

Albert F. Roberts.

Measurer of Grain.

Albert F. Roberts.

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